The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

Vol. 21. No. 12 DECEMBER, 1914

What Can the Doctor Do For Himself?

THERE is one question which exercises our mind with unremitting persistency; which goes to bed with us at night and gets up with us in the morning; which runs in our mind, like a perpetual refrain, as an undercurrent to all that we say or do. That question is: How can the condition of the general practitioner be improved so that, at all events, he may reap *something* of the harvest of advantage which modern progress and modern proficiency ought to bring him?

There is no question that twentieth-century medicine is a vastly more efficient thing than was the medicine of twenty-five and fifty years ago. And, since medicine finds its expression in its practitioners, the twentieth-century physician is a far more efficient practitioner than was the doctor of the past.

However, higher efficiency should bring better returns—a better average of returns—and we doubt very seriously whether the general practitioner, as a class, is getting even a fair proportion, to say nothing of the full quota, of the benefit that he ought to be deriving from the advancement of his science. Nay, we have no doubts at all on the subject—we know that he is not.

The service rendered by the doctor of today is beyond all comparison with that rendered by yesterday's physician. His training, his qualifications, his equipment, the organized facilities at his command—nothing was ever seen like it in the history of medicine. And his results are equally ahead of anything in the past. Does, then, the practitioner get a commensurate relative return—an economic return, we mean—for all this superior service? If not, why not? Echo answers, "Why not?" There's the rub. And we do assure you we have rubbed and rubbed, until the hair on the side of our head is almost worn off, in an anxious effort to solve the problem; until, in fact, we have reached the conclusion that we are not sufficient for the task.

In sooth, this is not a problem for one poor, limited, burdened editor to solve over his office-desk. If it is to be solved at all, it must be by the united experience and suggestion and action of all of our readers. It is not by what I (the editor) may say to you, but by what you (the readers) shall tell me, that help shall come. If I can not rouse you, or some of you, to sufficient interest in the matter to speak out your thoughts and your experiences and propos-

als, I might as well drop the subject and quit worrying about it at all; for, a monologue is of no use here.

But I do not believe you want it dropped. I do not believe you can afford to let it drop. We are constantly hearing the reproach leveled at medicine, that it is being "commercialized"; and then, in the same breath, the same critics tell us that the physician is a poor business man.

I don't take much stock in either accusation. Stripped of its apparent harshness, this "commercializing" of medicine simply means that the economic factor is being recognized and reckoned with; and this is not a bad thing, but, rather, a mighty good thing. For, as I have many times pointed out, it is not until it acquires an economic stimulus that any movement accomplishes anything worth while; and medicine's tremendous progress in the last twenty-five years has largely been owing to the entrance of this factor.

On the part of the general practitioner, this so-called "commercial" factor (prefer to call it the economic factor), so far from being overdone, has not been played up enough. I think that, perhaps, he has been intimidated by this bugaboo of commercialism into the idea that the economic aspect of his work was something to be ashamed of. That, of course, is nonsense. It is a very vital aspect, both to himself and to medicine at large, to say nothing of the public, and a reasonable consideration of it is both proper and necessary.

The great majority of physicians in the last two decades have been stimulated, by the spirit and competition of the times, to improve their working-conditions, equipment, and other elements, thus making themselves that much the more efficient; and, when you come to think of it, a large part of this wholesome stimulation has come from the "commercial" side.

The numerous progressive concerns that persistently have produced newer and better and more efficient materials and appliances, and advertised them to the profession, have been, we unhesitatingly declare, one of the most powerful driving forces in the increased efficiency of medicine and the medical man.

There can be no question that hundreds—yes, thousands—of the readers of CLINICAL MEDICINE have been almost involuntarily led into better and higher efficiency by walking, month by month, through the exhibit-gallery of up to date products and appurtenances furnished in its advertising pages. But of his own economic interests the doctor has, to a large degree, been strangely inconsiderate, and he is not getting proper returns for this advancement that has been forced upon him.

As to the physician being a poor business man, I do not believe it. There is nothing inherent in the doctor that should make him any poorer business man than is anybody else. It is simply that he either has not awakened to the importance, in his own case, of the very economic factor to which he owes most of his increased efficiency; or (what is more likely) he, like ourselves, does not quite see how to take advantage of it.

But some, at all events, must be good business men. Some must have solved the problem, at least in this or that direction.

It is to these latter men that we appeal for suggestion and help. Break your "conspiracy of silence" and speak out in meeting. Write, WRITE, WRITE, with or without your names, for publication, and tell an anxious editor, and a still more anxious profession, just how you have made the advantages of modern practice yield you better returns and improve your own condition.

How have *you* added to or readjusted your work, or your methods, or your relations with your patients, or your scheme of charging, or any of the phases of your practice, so as to get something, at least, of what is coming to you in these days of greater outlay and more exacting demands? And again I say, *write*.

In general, it is with advice as it is with taxes—we can endure very little of either if they come to us in the direct way. They must not thrust themselves upon us. We do not understand their knocking at our door; besides, they always choose such inconvenient times, and are forever talking arrears.

WHAT IS TRUE COURAGE?

In this, as in most matters of psychology, the world's estimate is superficial and silly. The real gamut, in fact, runs in precisely the opposite direction to that by which the world gauges the quality.

Highest in the world's scale of heroism is the cool, careless audacity that marches into the mouth of the cannon with a flower in its cap and a frivolous song on its lips, as serene as on parade. Such bravery is really the very lowest in the scale—if, indeed, it be in the scale at all, except in the sense that

zero is a part of the scale. It is not courage at all, but sheer lack of sensibility either from ignorance or from accustomedness. It is, in quality, the same mental attitude in which the ignorant, impassive mine-worker walks around in the fire-damps; and when they explode, he too becomes a popular hero.

Next highest in the world's gauge—next lowest in the true scale—is the courage that dares a quick danger in a sudden emergency. In itself, this is hardly a more genuine brand of courage than the first, except that it involves a more or less unselfish disciplining of the man previous to the demand that is made on him. Even so, it is more a matter of habit than of quality. The fact that there is no time to count the cost robs it of any deliberate merit. Many a man, in fact, is surprised into a heroism which is really no part of him. Certainly it is no high grade of courage. Rather, let us say, it is a negative sort of quality, to which, if a man does *not* respond on demand, we conclude there is some positive quality of poltroonery about him.

Still lower in the world's estimation—still higher in actual worth—is the courage which calmly and deliberately holds its course of duty, in the face of almost certain calamity and misfortune; the quiet resolution to meet one's fate, in the face of foregone disaster and disappointment; the steadfast setting of one's face to go to Jerusalem. Of all forms of heroism, none will so surely win the love and confidence of human hearts, which is worth a hundred times the admiration of human minds, than this.

Higher yet in the true scale—lower yet in the popular gauge—is the courage that sustains itself, as it were, upon nothing but its own unconquerable stamina. The man who, though his fights be all defeats, still fights; who, though he has been a failure in the past, and knows himself (as many a keenly sensitive man knows himself) to be a failure, and is doomed to be a failure for the rest of his life, rises patiently and indomitably every morning to face the inevitable defeat of the day, with equanimity and sweetness; there is a courage, my masters, of which the kings and victors of the earth are not capable.

But there is yet a higher quality of courage, the highest of all in the true scale, but so little esteemed in the popular mind that it will hardly be accorded a place in the scale at all, unless, as I said in respect of the first type, to be zero is to be a part of the gauge. It is the courage of cowardice; the bravery of the man who is afraid, but who, in mortal funk and abject fear, with throbbing heart and sweating brow, forces himself to do the thing from which he shrinks. This, which the world sneers at as cowardice, is the highest courage of all. In fact, it is the only true courage. For it sets all the agonized effort of a man's soul against all the fears and terrors that the powers of darkness can bring upon him.

Ring out, wild bells, to the wild sky,
The flying cloud, the frosty night;
The year is dying in the night;
Ring out, wild bells, and let him die.

Ring out the old, ring in the new,
Ring, happy bells, across the snow;
The year is going, let him go;
Ring out the false, ring in the true.

Ring out old shapes of foul disease;
Ring out the narrowing lust of gold;
Ring out the thousand wars of old,
Ring in the thousand years of peace.

—Tennyson.

AMERICAN TETANUS ANTITOXIN GOING ABROAD

It should interest American physicians very much to learn that there is promise of a tetanus-antitoxin famine in this country. Within the last sixty days, enormous orders for this remedy have come in from Europe, where the antitoxin is administered to wounded soldiers to prevent the occurrence of lockjaw, which is one of the most common and deadly complications of the wounds of war.

We learn that virtually every large commercial serum-laboratory in this country, as well as a laboratory maintained by a great municipality, is disposing of its surplus output to the French, Russian, and other European armies. Since it takes from six to nine months to produce tetanus antitoxin, there is considerable likelihood of a famine in this indispensable commodity.

Tetanus antitoxin is now employed by virtually every surgeon of standing, as a prophylactic in the course of treatment of incised or contused wounds. Thus used, it can be depended upon to prevent the occurrence of tetanus, a disease which by no means is confined to the summer months.

In view of this threatened antitoxin famine, we cannot too strongly urge all American physicians to provide at once for

a supply of this remedy before prices advance, as they are almost sure to do. Whatever happens abroad, it is important that our own people in the United States are taken care of.

We are oftentimes in suspense betwixt the choice of different pursuits. We choose one at last doubtingly and with an unconquered hankering after the other. We find the scheme we have chosen answers our expectations but indifferently—most worldly pursuits will. We therefore repent of our choice and immediately fancy happiness in the paths we declined; and this heightens our unhappiness. We might at least escape the aggravation of it. It is not improbable we had been more unhappy but extremely probable we had not been less so, had we made a different decision.—Shenstone (an old philosopher).

THE TRUTH ABOUT BACTERINS

A few days ago we received a letter from a reader of CLINICAL MEDICINE who is anxious for more information regarding bacterins. "I want to find out," he said, "why it is that sometimes I get results so brilliant as to seem almost miraculous, while in the very next case I may fail absolutely."

The doctor's problem is a hard one to solve. However, if we were to try to formulate our own views in a single paragraph, our reply would read something like this:

Therapeutic success is due to the accurate fitting of a remedy to disease conditions. This applies to the use of bacterins, just as it does to the use of medicines. Failure comes when the remedy does not fit the disease, and this is especially likely to be so when no bacteriologic diagnosis has preceded. It is just as foolish to give a staphylococcus bacterin for a coli infection, as to administer salvarsan to cure eczema.

The truth of the whole matter is that bacterin therapy has degenerated too much into a sort of shotgun method of prescribing. It is just as irrational to give to some patient merely, "by guess and by gosh," a mixed up hodge-podge of from five to twenty different dead bacteria, when you don't know whether any of these bacteria are responsible for the patient's ailment, as it is to give a mixture of as many different drugs sold under some fanciful name and alleged to be "good for" dyspepsia, diabetes or ingrowing toe-nails, as the case may be.

Bacterin therapy has suffered most in the houses of its friends. There has been too much of a tendency to encourage the idea that the doctor can "guess" at the character of the causative bacteria, and then cure his patients with a chance shot of some mixed stock bacterin. No doubt he may guess right in a considerable percentage of cases; for instance, in acne, furunculosis, and tuberculous fistula. In such conditions, he may be, and very likely will be, justified in proceeding in his treatment immediately, without waiting for the report from the laboratory. Nevertheless, such a procedure is not scientific, and such therapy is foredoomed to failure in many instances.

The best results will always follow the exact fitting of the remedy to the disease, and those practitioners will get the largest percentage of brilliant cures from the use of bacterins who insist upon securing specimens of the patient's wound and other secretions for bacteriologic diagnosis.

Very frequently, it is true, the stock bacterin will prove quite as effective as will the autogenous bacterins, and by using them much valuable time often is gained. On the other hand, in chronic cases or in badly mixed infections, resort to autogenous bacterins almost invariably is preferable. They are so readily made and they have become so cheap, while they give such brilliant results when properly used, that we cannot understand why any physician should neglect to employ them in such conditions. Nevertheless, the majority of infectious diseases do well under stock bacterins, and a complete "battery" of the most common of these should be readily available for every physician.

Another truth about bacterins which the profession is just beginning to learn is that they cannot be depended upon to replace medicinal treatment. Only rarely can best results be obtained by using them alone. The best plan undoubtedly is, to use them conjointly with the best medicinal treatment available. Thus used, in properly indicated cases, they are much more likely to bring about the patient's recovery than when depended upon to the exclusion of drugs.

Especially desirable in bacterin treatment is resort to measures to increase the patient's resistance. Bacterins are only efficient when their administration is followed by a powerful reaction. Such a reaction demands for success the essential integrity of the vital forces. In acute diseases, therefore, in which the patient's resistance is becoming feeble, the use of remedies to support the heart and strengthen the tone of the nervous system not only is desirable, but actually indispensable.

Another thing—to produce active immunity in practically all diseases, there must be leukocytosis. For instance, opsonic activity, upon which bacterin therapy largely depends, requires an ample supply of phagocytes to engulf and destroy the invading micro-organisms. How essential it is, therefore, to stimulate leukocytosis, and how better can this be done than by means of nuclein? There is no doubt whatever that the very best results can be secured from bacterin therapy through the associated administration of this remedy. This is a point which some of our own readers have been quick to grasp, but which has been neglected by most physicians. Nuclein therapy and bacterin therapy are mutually supportive.

And here is another truth. Different bacterins vary greatly in value. The typhoid prophylactic and the various acne, staphylococcus, streptococcus, and bacillus-coli bacterins have attained an established and unshakable position in therapy. As to their value, there cannot be the slightest question; but, the gonococcus bacterin, so much lauded as a cure for gonorrhea, seems to have little or no value in the acute stages of the disease. In gonorrheal arthritis and in chronic localized gonococcus infections generally, it is undoubtedly a meritorious preparation.

There is the same uncertainty of action with regard to the pertussis bacterin. While this preparation has been extravagantly praised by a few physicians, there is a growing opinion among practitioners of large experience that it is of little value. Frankly, we have far more faith in the use of atropine and calcium sulphide, given to effect, in the treatment of whooping cough, than we have in the vaccine made from the Bordet-Gengou bacillus.

Finally, if we may sum up in a few words of advice to the general practitioner our opinions with regard to the bacterins, we should put the matter about as follows:

1. If there is the slightest question as to the nature of the bacteria causing any ailment, acute or chronic, insist upon securing a bacteriologic diagnosis. In acute cases, where time is a factor, the administration of a suitable stock bacterin should begin at once—but, in any event, find out what bacteria are present.

2. In chronic cases and those of mixed infection, instead of resorting to a shotgun bacterin mixture, one containing a half dozen or more different organisms, procure and use an autogenous bacterin, unless you can closely fit the bacteriologic indications from your supply of stock bacterins. You will get far more brilliant results, and the increase in expense will be relatively slight.

3. In practically no case can best results be obtained from the use of bacterins alone. Insist upon applying the proper medicinal, surgical or other treatment in every case.

4. Remember that vital resistance and cellular reaction are essential to secure best results from bacterins. Unless the supply of leucocytes is ample, the disease-producing bacteria will not be phagocyted properly. By using nuclein in ample dosage, frequently repeated, the therapeutic efficiency of the bacterins will be greatly intensified.

5. Different bacterins vary greatly in value. There are some, like the typhoid prophylactic, which are practically universally curative or prophylactic. Others, like the acne, streptococcus, and staphylococcus bacterin, are generally meritorious, but not always curative. Still others, like the gonococcus and pertussis bacterins, are of doubtful utility, and while they may and should be used, the main dependence must be upon medicinal treatment.

By following these simple rules, constantly keping in mind the *specific* action of the bacterins, as well as the importance of other equally vital factors in the establishment of active immunity, the percentage of your "miracles" will constantly increase.

FRESH BLOOD WANTED!

We want blood! No, not that of any particular individual—not the blood of the Germans, or the English, or the French, or the Russians. We just want to stir the blood of those of our readers who have never heretofore contributed to the pages of CLINICAL MEDICINE. There are thousands and thousands of men who read the journal every month, and who write us that they like it; yet, have never given us a single line for publication. We want to hear from these men. Make it personal, doctor—we want to hear from *you*; and we want things which are of practical value, not long articles, not theories, but actual records of actual experiences in the treatment of diseases—in other words, therapy.

Our good friend Doctor Ellingwood, of *The Therapeutist*, prints the subscription

price of his journal as being "One dollar and one therapeutic item." We want the therapeutic item, but we don't want you to wait until you renew your subscription before sending it in to us.

While this invitation is intended primarily for the new men—the new blood—we hope it won't discourage any of our old friends whose contributions we appreciate so much. Let everybody take a hold and help. Let us fill CLINICAL MEDICINE so full of helpful material during the next few months that it will become absolutely indispensable, not alone to the thousands of men who now read it, but also to the thousands of others who ought to read it and will do so if we all do our part.

Get out your record of cases, doctor, and make it the basis of a short article for our next number.

Men themselves are makers of themselves by virtue of the thoughts which they choose and encourage. A noble and God-like character is not a thing of favor or chance, but is the natural result of continued effort in right thinking.—James Lane Allen.

IDEAS THAT HAVE MADE MONEY

In the preceding editorial announcement, we extended an invitation to everybody to write something for CLINICAL MEDICINE. We hope to embody a lot of the communications we expect to receive from our friends in a series, or symposium, to be entitled, "Ideas That Have Made Me Money." There is not a reader of this journal who has not at some time in his career stumbled upon, discovered or picked up some line of treatment which has added to his bank account.

One reader of CLINICAL MEDICINE not long ago wrote us that one item which he got from this journal within the next few months brought him in $200. We want to provide an "exchange" for such ideas. CLINICAL MEDICINE submits itself as the medium.

Who will be the first to submit a money-making idea?

ARGUMENTUM AD TINCTURAM

The Therapeutic Digest comes back at us in its September issue. Its editor believes in consistency. So do we, but there is only one basis for laudable consistency, and that is truth.

Most men really seek to follow truth, but they depart widely from each other in the pursuit. Yet truth is absolute, unvarying. The difficulty lies in men's varying views and conception of truth.

The *Digest* believes in and advocates green drug tinctures, deeming them excellent medicinal plant preparations. So do we. It believes that by employing the still-alive green drugs certain valuable principles or qualities are retained, that are or might be lost if drugs previously dried are utilized. A very attractive proposition, possibly true, but as yet no proof of the hypothesis, in the modern scientific sense, has been presented. That a few or many clinicians have administered these tinctures and the patients got well, may mean much or nothing at all. There is no definite proof in such testimony, only inference and probability. That these same practicians declare the green-drug tinctures superior to the dried-drug tinctures is worthy of consideration; but we must also consider that other observers are of the contrary opinion, and declare they find the dried-drug tinctures stronger, more uniform, and less liable to deterioration. Moreover, some may claim that the vital or volatile principles in some plants are not conserved or may even be killed by alcohol. If we judge by a vote, the vast majority of drug houses manufacture the dried-drug preparations and the vast majority of physicians prefer them. The official pharmacopeia recognizes them only.

It is, therefore, a matter of opinion, and both sides may have honest, capable adherents, who give legitimate reasons for their preference.

When we say that atropine dilates the pupil, we state a fact that nobody can deny. The same is true as to the action upon the vital functions exerted by strychnine, aconitine, morphine, quinine, berberine, emetine, and pilocarpine. We know what each will, must, and does do, to influence certain vital functions. There is no dispute as to these facts.

In applying these agents, we seek to detect in the sick person the derangement of vital function, and then apply the remedies that restore that function to normal activity. If the vascular tension is too high, we give veratrine until the tension is relaxed to normal. By removing the phenomena of disease we restore health. There is not and cannot be, any dispute as to the efficacy of drugs so administered. That is exactly our claim for the alkaloids, of certainty in action as compared with galenics.

Naturally, in trying out the power of the alkaloids, we follow the lines indicated by previous experiences with the parent drugs. Experiences with belladonna, nux vomica, cinchona, opium, and jaborandi, point the way to probable success with atropine, strychnine, quinine, morphine, and pilocarpine; because in the remedial effects of the parent plants we recognize the constitutional activities of the alkaloids mentioned. But in very many cases the latter are to be preferred on account of certainty in quality and quantity of action.

Here we must point to a fundamental error in the reasoning of our friend. He explains that the parent plants possess other potential activities that modify those of the principal remedial constituents. True, but nature develops all these for the plant's uses, not for ours. If she develops 25 per cent of morphine in one lot of opium and none at all in another, it is to meet certain conditions of the poppies, and not with a view to their ultimate utilization by man. Hence, in adapting these plant educts to our uses we must meet variations designed for the plant's conditions. Let us get rid of the notion that God foresaw that Johnny Jones would eat that peach of emerald hue, and would need just that much morphine, etcetera, in the poppies growing across the world, to be made into paregoric. Much simpler would it have been to blight the blossom whence sprang the peach.

Much simpler is it, instead of relying on the chance combinations formed by nature to meet plant conditions, to extract each of the active principles and combine them ourselves, to meet the patient's conditions. Thus we get such decided therapeutic potentialities as are expressed by the alkaloids in general use, and those rapidly coming into similar favor. Thus we obtain the brilliant successes of emetine in dysentery, hemoptysis and pyorrhea, instead of the uncertainties of ipecac; the sure and powerful sedation of gelseminine instead of the irregular and questionable action of jesamine; the sure and tremendous elimination of pilocarpine instead of the possible shutting off of secretion induced by jaborandi.

A drug when administered should exert effects as certain as the surgeon's knife. What is there to hinder such certainty but the use of uncertain drugs? The surgeon does not dissect out tissues with a lump of iron ore.

Now our friend of the *Digest* always advocates the green-drug tinctures. He never by any possibility finds them unsuitable, or in any manner inferior to any other form of medicaments. He would like us to occupy a similar attitude toward the alkaloids —always alkaloids and nothing but alkaloids. It would be so much easier to whack us!

But we never have and we never will be put in this position. We employ the alkaloids when they are our best resources. We utilize the indications derived from the parent drugs whenever it is evident that it is the alkaloidal effect that proved useful in establishing these indications. Whenever we find better results follow the galenics we use them. And we have used green-drug tinctures with excellent results and are glad to say so!

The real objection to our position is its impregnability. It is absolutely ethical. The shafts of ridicule and the 16-inch shells of argument fail before the simple statement that in all cases we use what we believe best for our patient, be it what it may.

Once to every man and nation comes the moment to decide;
Then it is the brave man chooses, while the coward stands aside,
Doubting in his abject spirit, while his Lord is crucified.

Truth forever on the scaffold, wrong forever on the throne;
But that scaffold sways the future, and behind the dim unknown
Standeth God within the shadow, keeping watch above His own.

—Lowell.

HYGIENE OF THE MOUTH, AND THE PUBLIC

In a recent number of *The Associated Sunday Magazines*, there appears an excellent popular article from the pen of Dr. Edwin F. Bowers, on the subject of "Teeth and Health."

Doctor Bowers has been doing yeoman service in the popular dissemination of what may be termed the common sense of the science of health. He has the knack of writing interestingly and breezily, and at the same time convincingly, in tune with the advanced scientific knowledge; and there is no doubt that such writing, in the popular journals, reaches a much larger public and exercises a far wider influence than all the official pamphlets and quasi-professional lectures from hall platforms.

The gift of interpreting science—especially medical and hygienic science—into the language of the people, without sacrificing any of its authenticity, is a rare one, and Doctor Bowers is to be felicitated upon his ability in this direction.

The Doctor is to be especially congratulated upon tilting his lance in this crusade upon oral evils. It is both timely and important. Since dentistry, which came from out the deep of medicine, has begun to turn again home, so that the dentist has become interested in the medical aspects of dentistry and the doctor in the dental aspects of medicine, the subject of hygiene of the mouth, which for years was a huge joke, has taken on serious and business-like proportions. We really have awakened to the important role that the teeth play in the general health, both on account of their effect upon digestion and also by reason of the absorption of pus and germs from diseased teeth and gums into the gastrointestinal tract and the blood-stream.

It may not be exactly true, as Horace Fletcher asserts, that "the whole question of nutrition is settled in the first three inches of the alimentary canal," but there is a good deal of truth in the statement. There are many people today who are making a great deal of fuss about the purity of the food that they eat, whose teeth are so unclean and decayed that they cannot chew a single bite of food without mixing into it all sorts of bacteria. And the startling truth which Doctor Bowers so powerfully emphasizes no longer admits of the slightest question—it is, in fact, no longer startling to us who are behind the scenes, so to speak—defective teeth and unclean mouths *are* sinister factors in social and economic unfitness.

This subject, like many others that modern health-crusades are bringing to light, has passed the stage (if it ever properly belonged there) where it was an individual matter between the patient and his medical (or dental) advisor; it now occupies a place among the proper topics for public education and instruction, for the purpose of increasing human efficiency. It is not only a legitimate topic for popular exploitation, but it is one which calls loudly for just such popularizing illumination as Doctor Bowers brings to it.

It is, furthermore, worth remarking that in the past few years medicine and dentistry have made wonderful strides in the prophylaxis and treatment of oral and dental conditions. Working side by side, in the most advanced fields of clinical and laboratory research, they have together discovered and developed some highly valuable and practical things. As we have said, oral hygiene is no longer the farce that it used to be. It is abreast with the rest of our twentieth-century medical sciences. We are able to go to the public with a good face, and urge upon them the care and preservation of their teeth, because we can, in the same breath, give the rational instructions, and bring them in our hands the adequate means for carrying out our advice.

The latest, and most conspicuous triumph in this respect is the conquest of pyorrhea—unquestionably the most widespread and destructive of all the enemies of good teeth. If, as seems reasonably certain, the specific curative action of emetine in this distressing disease shall justify the apparently definite provings which have been made of it, then, indeed, we shall be in a position to bring to the people a gospel of glad tidings. Even yet, to our unaccustomed minds—timid that we humans are of all good news! it seems almost too good to be true. But the most careful and cautious provings of our most conservative and authoritative investigators have practically no room for doubt. With this in our hands, we may well blow the trumpet of oral hygiene and efficiency a hundredfold more loudly and certainly; and our friend Doctor Bowers may wind upon it more persuasive numbers than he has yet felt free to do.

When a man habitually gives the same greetings, always advances the same arguments, forever asks the same questions, and never misses an opportunity to spring his favorite joke, he soon acquires an intellect with all the potency of a rubber stamp.

EMETINE—A "DOUBLE-BARRELED" SPECIFIC

During the last few months, we have had occasion to say a good deal in these pages about emetine; and there have been excellent reasons for the space devoted to the discussion of this drug.

When Rogers, of Calcutta, demonstrated that in the pure, crystalline alkaloid of ipecac we had a definite *cure* for tropical dysentery, one of the great scourges of the world, he ushered in an epoch in the history of medicine. From that day on, emetine took rank, as a specific, with quinine

in malaria, salvarsan and mercury in syphilis, and antitoxin in diphtheria.

Nor is that all. Within the last six months, the discovery has been made by Barrett and Smith, of Philadelphia, a discovery verified by Bass and Johns, of New Orleans, that emetine is, in addition, specific for another devastating disease—pyorrhea alveolaris. All the evidence available seems to show that it is just as definitely curative in this disease as it is in dysentery.

I hope every reader of CLINICAL MEDICINE will read the abstract of Doctor Bass's article, which appeared in last month's issue, on page 1000, also his article on page 1106, this issue. There have also come to our attention reports of a number of cures of pyorrhea following the administration of emetine, in severe cases, which had failed to respond to other methods of treatment. For instance, we know of one New York dentist who employed this drug in a case in which pyorrhea affected virtually all the teeth in the patient's mouth. The gums were spongy, the gingeval sacs were exuding pus in large quantities, and the teeth were loosening. The patient was in very poor health, as a result of the condition of the mouth. After a few days' treatment with emetine, the clinical picture was changed for the better in a manner and degree which were simply marvelous.

There is no doubt that what was accomplished in this instance can be accomplished in thousands of others. And it should be remembered that, in curing pyorrhea, the dentist or the physician giving this treatment is undoubtedly preventing other more or less remote but crippling diseases, since it is now believed that a large percentage of the chronic arthritides (arthritis deformans, for instance) are caused by pyorrhea.

It will be seen, therefore, that emetine possesses the unique distinction of being the one remedy in the world that apparently is a specific for two separate and distinct diseases. It cures tropical dysentery, and it cures pyorrhea. In addition, its power of checking internal and external hemorrhage (especially hemoptysis) promptly has been demonstrated again and again, and the number of successes is constantly growing; and it still retains its place as one of the most valuable remedies at our disposition for the relief of the dry cough and viscid expectoration, which is so characteristic of various stages of bronchitis and pneumonia.

We cannot urge upon our readers too strongly the importance of a careful restudy of this alkaloid.

Party spirit incites people to attack with rashness and to defend without sincerity. Violent partizans are apt, when they argue with an opponent, to make the question personal, as if he had been present, as it were, and a chief agent in all the abuses which they attribute to his party. Nor does the accused hesitate to take the matter upon himself, and in fancied self-defense to justify things which otherwise he would not hesitate for a moment to condemn.

FOOT-AND-MOUTH DISEASE

The growing importance of comparative medicine must be apparent to every physician. Time was when there seemed to be a wide gulf between man and other animals. Thanks to his superior intellectual development, the man had arranged an excellent classification of the vertebrates and placed himself at the head of the list; yet, after all, every human being is an animal, and the experience and observation of years tend to lessen the distance that we formerly thought separated us from other less highly developed creatures.

Of course everyone has noticed in the press the reports of the extensive outbreak of foot-and-mouth disease now prevailing in Michigan, Indiana, Illinois, and other states. This epidemic is highly important to physicians as well as to veterinarians, not only because one of the sources of our food is imperiled and one of our great national resources in danger, but, also, because it is one of the many animal diseases that is transmissible to man. For this reason particularly, physicians who practice in the infected regions should be prepared to assist in maintaining the rigid quarantine that must be established against this highly contagious disease.

For centuries foot-and-mouth disease (aphthæ epizooticæ) has repeatedly swept over Europe, but on account of the few and limited outbreaks in the United States, and the vigorous measures adopted for its repression by the federal government, until the present it has never attracted much attention in this country. It is caused by a filterable virus. At room temperature and in daylight the organism loses its virulence within twenty-four hours, and heating to 70 degrees C. destroys the virus within ten minutes. Under favorable conditions the virus has been kept for three or four months.

The infection is spread by contact, as well as by the saliva, milk and excreta from infected animals. No one should visit infected farms, stables or other places without carefully disinfecting himself and his clothing afterwards, particularly the shoes.

Foot-and-mouth disease is most commonly observed in cattle, less frequently in sheep and swine, and rarely in horses or in the carnivorous animals.

The symptoms of foot-and-mouth disease usually appear within from two to seven days after exposure. There is a rise of temperature from 2 to 6 degrees above normal, and vesicles begin to form in the mouth, on the feet, and on the udders and teats of females. These vesicles vary in size from that of a pea to that of a silver dollar; they soon burst, discharging a watery fluid and leaving behind a raw, sensitive area. There usually is a discharge of frothy saliva from the mouth and frequently a peculiar smacking sound is made as the animal moves its jaws. Animals are unable to eat coarse food and they frequently hold the mouth open on account of the pain. Also to alleviate pain in the feet the animal may shift its weight uneasily from one leg to another.

Besides the unknown virus, the fluid in the vesicles may contain other organisms, particularly staphyloccoci and streptococci, that may otherwise materially modify the course and symptoms of the disease. The acute symptoms usually subside within ten days, and then convalescence begins.

As a rule the mortality among animals is not high, varying from 2 to 20 or 30 per cent, according to the virulence of the different outbreaks, which varies greatly. The greatest economic loss results from the falling away in flesh of the affected animals, the loss in milk production and the embargoes placed upon the shipment of animals and animal products from an infected region. One attack of foot-and-mouth disease confers immunity, and vaccination to produce immunity is sometimes practiced in a region that is permanently infected.

In virulent epizootics of foot-and-mouth disease the infection is frequently transmitted to human beings through raw milk, cheese, and butter, and it is occasionally contracted by contact with infected animals. In man the disease usually occurs in a mild form, except in children, in whom it may be associated with a gastrointestinal irritation that may cause death.

Bussenius and Siegel report 16 epizootics from 1878 to 1896, in the course of which entire families and even the inhabitants of townships became infected. During three different outbreaks, 36, 23, and 16 deaths occurred.

The following symptoms are usually observed in the human patient: There is rise of temperature, with some associated gastrointestinal irritation, together with headache, dizziness and mental dullness. The mouth becomes dry and the mucosa is reddened; blisters form on the lips, gums, the edges of the tongue, and on the inside of the cheeks. The vesicles burst and the epithelium is soon re-formed. Vesicles sometimes appear on the finger tips and at the base of the nails, but only rarely on the toes and other parts of the body.

The stamping out of the present outbreak of this disease, which appears to be in a rather virulent form, will require a rigid quarantine of the infected region with all the loss and inconvenience that it entails, in addition to a large financial expenditure. However, this is the most economical method of dealing with this epizootic and everyone should render all assistance possible to the federal and state authorities in the arduous work which has been placed upon their shoulders.

Much maudlin sympathy has been sloughed off by many unwise folks over those afflicted with real or imaginary sorrow. Those folks need less sympathy and more inspiration. Thousands of people are natural "leaners," and if they can find anyone gifted in the art of exuding sympathy, they will hang around until they have had their fill.—Thomas Dreier.

NARCOTIC LEGISLATION

We were somewhat premature last month in announcing the passage by Congress of the Harrison Antinarcotic Bill. As we then stated, the differences between the House bill and the Senate bill have been adjusted by the conference committee of the two houses. The revised bill was accepted by the Senate, but, unfortunately, it was held up in the House of Representatives on account of the filibuster on cotton-relief legislation. However, we have the assurance that the measure will be passed immediately after Congress reconvenes in December. So far as we know, there is no opposition to the bill in its present form.

With national antinarcotic legislation provided for, the problem of state legislation against narcotic-drug abuses must be

considered. The necessity for such state legislation every doctor must appreciate. No doubt, the new federal law will be used as a model for the numerous bills which will appear in our legislatures during the coming winter. We hope that this may be so. Nothing could be more unfortunate than a multiplicity of regulations governing the sale, prescription, and dispensing of the drugs affected by laws of this character. Also, we want to see strong laws passed that will effectually put an end to the illicit use of habit-forming drugs.

In order to secure legislation designed to bring about the ends desired, without unnecessary embarrassment of the medical profession, it is of the utmost importance that the physicians of this country should take an active part in framing the new state laws. Remember that legislation of this kind is essentially medical in character. It will no doubt provide for the segregation and care of drug-habitues (as in the New York state law), as well as for regulation of the traffic in narcotic drugs. Therefore, in its enforcement—as well as in its molding—physicians should play a very important part.

There are many physicians in our state legislatures. We hope that these men will be foremost in the preparation and introduction of these bills, and that in framing them they will co-operate with the organized medical profession, so as to secure its best interests, as well as the interests of the whole people.

From a legislative point of view, we know of no matter of greater importance than this one. Take it up in your local medical society. Go into every detail with care. The pages of CLINICAL MEDICINE are open for its discussion.

PELLAGRA DEVELOPMENTS

Two more clinicians who devote special attention to pellagra, have reports of their work in *The Medical Council*, while there were two very interesting papers on the subject in last month's number of CLINICAL MEDICINE.

Doctor Niles of Atlanta, Ga., has published a book upon this disease. His results are encouraging. He prescribes alcohol, directs sunlight in summer, and radiant heat, and makes free use of proteids, buttermilk and vegetables, restricting the use of cereals.

As to drugs, he uses quite a number, meeting each indication with appropriate remedies. As specifics he employs iron arsenate and sodium cacodylate, sometimes substituting iron citrate and compound glycerophosphate for the iron arsenate, if the patient is anemic and quite nervous. He also gives potassium iodide and Fowler's solution, increasing the dosage until arsenical saturation is manifest.

For diarrhea he uses bismuth betanaphthol and resorcin, with tannigen and opium in reserve. On alternate days he administers kerosene enemas. If constipation presents he uses mild cathartics. The sore mouth is treated with thymol solutions or boroglycerin. Stomatitis and glossitis require silver nitrate.

Cutaneous lesions are treated with zinc oxide, boric acid, or calamine. The intense burning is relieved by applications of corrosive sublimate, phenol, or hot mustard water. Acetanilid or acetyl-salicylic acid mitigates the neuralgic pains. Hydrotherapy is useful.

The significant part of the treatment is the use of gastrointestinal antiseptics. This is emphasized by the report of Dr. Hardee of North Carolina, describing his treatment since 1908. He drops all else and pronounces salol a near specific for pellagra. Other remedies used are merely symptomatic. In the rare case in which stomatitis occurs, zinc sulphocarbolate is applied. His results are so good that Dr. Hardee considers pellagra as amenable to treatment as any other disease.

We have noted quite a number of reports in which the intestinal antiseptics were employed as adjuvants to specifics, the credit being given to the latter. Dr. Bowling, of South Carolina, has praised this class of remedies highly in papers published in CLINICAL MEDICINE, his favorite being chlorine water. Dr. Hardee places his reliance on one of the best remedies of this class, and he declares that he has never lost a case when his treatment was carried out.

Another significant fact noted by Doctor Blair, is that the early enthusiasm for arsenic in pellagra is dying out. The rapidly lengthening list of deaths following the use of salvarsan may have something to do with this; but the growing confidence in the antiseptics is probably the principal cause. Certainly it is a "desirable desideratum" that a dangerous remedy should be replaced by a safe one, if the latter proves as effective.

Two other remedies deserve mention during any discussion of pellagra—yes, three remedies. One of these is calcium sulphide, used with such gratifying success by Mizell and Pixley; another is quinine hydrobromide, praised by Isadore Dyer, of New Orleans, who in 100 cases treated with it had 100 per cent of recoveries; and the third is santonin, employed by Nason in all cases presenting intestinal worms, often a complicating element.

Also—diet is of the utmost importance. Pixley reduces the vegetable fats to a minimum and gives plenty of proteids, a practice which is supported by the experience of Goldberger of the United States Public Health Service. See an abstract of his article, printed elsewhere in this issue.

Pick up your task in the morning with eager hands, and in the evening it shall return to you a sweet calm. No work that comes to you to be done is too insignificant for you to do; whatever task is sent to you is meant that your hands should do it, for there are no other hands in the world that could do it half so well. Then take up your work with a glad heart; be gentle in your sayings, earnest in your doings and honest in your relations to all men and women. Inspiration shall come to you, and life will be altogether beautiful.—Ada M. Kassimer.

CULTIVATE OFFICE PRACTICE

We have just asked for suggestions from our readers for ways in which the doctor may better his condition and realize a little more of the economic benefits which ought to flow out of present-day efficiency in medicine.

It occurs to us that one way is to be found in the more and more assiduous cultivation of office practice. A certain amount of house to house practice is, of course, inevitable for the general practitioner; and house to house practice has its own peculiar values to the physician, chief of which is the solid place that it insures him in the regard and service of the family.

The specialist who does an exclusively office practice never enjoys the permanence and intimacy with his clientele that the family physician holds by reason of the entree which his house to house visits give him. That this permanence and intimacy is a valuable asset, even to the specialist, is evidenced by the tendency on the part of specialists nowadays to locate in residence centers, where they at least can establish something approaching to the family relation. The general practitioner cannot afford to neglect or belittle his advantage in this respect.

But, on the other hand, visiting-practice has one very pronounced disadvantage, from the economic standpoint, namely, that its financial status is more or less rigidly fixed. Custom has decreed that, no matter how trifling or how serious the case, how little or how much the physician may do during his visit, the charge shall be based upon a per-visit consideration, and shall be the same in every instance.

Nor is this quite the extent of the anomaly. For, the more capable the physician is, and the more efficacious his treatment, the less the number of visits that he is called upon to pay; and the less the number of visits he pays, the less the amount of the bill which custom permits him to render on this per-visit basis. Cutting down this syllogism to its first and last time, we find that the more capable and efficient the physician is, the less he gets for his service in house to house practice. Which is not very encouraging from the economic standpoint.

With office practice it is a little different—indeed, a great deal different. While it is true that custom and tradition have also fixed the charge for a routine office visit, and it is even to be admitted that this established office fee is less than the recognized fee for a house visit, yet, there is, especially in these latter days, every manner of elasticity accorded the physician in the way of wresting the office visit out of its routine character, such as is not permitted at all in the case of the house visit.

One can do a great many things in the way of treatment, to begin with, that one cannot very well do in the patient's home—stomach analyses, electrical tests, gynecological treatments, physiologic applications, minor surgery, and the like, all of which may be charged for, not on the cut and dried per-visit basis, but on the much more equitable *ad valorem* basis.

Again, the very same procedures which, carried out during a house visit, would be regarded as a routine part of the visit and expected to be included in the charge for the visit, when performed in the physician's office, would mutually be looked upon as special services, to be feed accordingly.

As a third consideration, one can see and deal with half a dozen patients in this special way in the office during the time that would be consumed in making one four- or

five-mile visit, with much less effort and much better returns. Other considerations naturally will occur to the thoughtful practitioner.

Office practice, therefore, seems to us to afford an excellent opportunity to exploit the advantages of modern medicine and to turn them to account. The physician who cultivates and encourages office work, while at the same time maintaining his visiting practice, will reap the double benefits of an expansive and elastic field of labor, supported by the solidity and permanence of his family relations with his clientele. He can, if he wishes, even develop some form of special work in his office, such as refraction or nose and throat surgery, or whatever most appeals to him, with which he can supplement his general practice, making the latter feed the former.

Another reason for cultivating office practice is, that it constitutes a provision against the inevitable approach of that time when the practitioner can no longer live the strenuous life; when he is obliged to leave to younger men the long, hard rides and the answer to the night 'phone. If, when this time arrives, he finds himself in possession of a well-built office practice, he can still remain in active and profitable performance of the work to which he has devoted his life and which every doctor has by this time come to love as he loves his life.

DON'T TAKE TOO MUCH FOR GRANTED

In a communication to *The Medical Record* on the subject of taking smears, Dr. Douglas H. Stewart takes occasion to critibise sharply the lack of elemental instruction and information which characterizes the monographs and text-books (and he might have added, the current medical journal articles) in the various subjects of which they treat.

"The writer of a monograph who takes too muc hfor granted," says Doctor Stewart, "might as well have lost his understanding, so far as conveying the fundamental, elemental facts of his subject to the reader; his book is full of holes; incomplete and still-born. Volumes have been written upon gynecological subjects for many centuries, yet the every-day theme of leucorrhea still leaves a hiatus between book and laboratory, as no mind not specially trained could properly carry out their simple but unexplained order to 'take a culture.' Personally, I know how to take smears, because I was first instructed by word of mouth, but exploration of eight books on gynecology, two on bacteriology, and two on microscopy, has failed to yield any information worthy of the name."

This is most timely criticism, to which we pronounce a devout Amen. There is no more healthy or promising sign of the times in medical practice than the eagerness with with which the general practitioner, even in the remotest corner of the rural districts, reaches out for the fruits of modern scientific research and mechanical ingenuity, and the alertness with which he avails himself of his advantages and responds to every advance movement; and there is no more disappointing and exasperating spectacle than the tantalization of these eager spirits and outstretched hands with fruit hung just out of their reach, treasures held just short of their grasp, for lack of a little considerate explanation of the elements of the subject discussed.

Many a practicing physician has a good theoretical acquaintance with, and a thorough appreciation of the value of the various diagnostic and therapeutic procedures which have come into vogue since the time of his graduation; but he is not making use of them because he has never had the opportunity of familiarizing himself with the necessary technic of their application, and, as Doctor Stewart points out, the text-books and monographs are all in a conspiracy of silence in this respect. Perhaps that is a little too harsh; possibly it would be more correct to say that they take too much for granted.

There are, to be sure, two or three books on the market devoted entirely to diagnostic and therapeutic technic, including that of every important measure used in medical practice up to the time of printing. But even this is not adequate to meet the situation, since there are many procedures which cannot be included in a text-book of limited size, and every day, almost, brings forth an innovation, or at least a modification, in technic.

What is needed is that the medical journals, which are, after all, the great educators in current medicine, shall give this practical, technical phase of medical practice more extensive and detailed treatment. We are too ready to assume a knowledge of technic in matters

which cannot possibly have come within the ken of the men in the field. The readiness with which they respond entitles them to the utmost consideration in this respect. This journal, for one, proposes to give even stricter heed to its duties in this direction in the future than it has in the past.

What do *you* want?

THE CHRISTMAS-SHIP AND THE CHRISTMAS SPIRIT

As I write these words, the Christmas-ship is making ready to start on its memorable voyage from New York to Europe. By the time my words are read by the CLINICAL MEDICINE "family," it will already be ploughing its way through the Atlantic Ocean. A unique and wonderful ship—the first ship that ever sailed under the official flag of the Christ Child, the Star of Bethlehem—carrying Christmas gifts from the children of happy, prosperous America to the children of war-stricken suffering Europe. It is the modern impersonation of the oldfashioned Yulelog (almost forgotten in our latter-day artificial Christmas celebrations), the kind that burned on the hearth of good King Wenceslaus when he "looked out, on the feast of Stephen." Round its weather-beaten hull and its blessed pennant will gather the widowed and orphaned, the hungry and the naked, the poor and the sorrowing, and kindly hands will distribute Christmas cheer, food and clothing, toys and playthings, comfort and blessing and joy.

I would give worlds to be the captain of that ship—or even the humblest among its crew. Think of the imperishable honor of sailing a vessel under the Star of Bethlehem. Not a flag on the sea but will reverently dip to it. Not an eye will be dry as it steams imperially into port and anchors at the quay. I think I could be content to sail such a ship and die. But, after all, the captain and the crew are but the privileged representatives of every boy and girl and every grown person that has helped to charter and load it. "Inasmuch as ye have done unto one of the least of these my brethren, ye have done it unto me."

But the Christmas-ship carries more than Yuletide gifts and Yuletide greetings to the suffering and needy. It is freighted with the heart of America. It conveys, as nothing else could, the real, unspoken message of the New to the Old World in this terrible crises. For, whatever their differing nationalities and creeds, whatever their name or sign, deep in their hearts the citizens of the New World are children of the new era. They have been born again. They have seen the new vision—the vision of a common humanity and of a golden age,

> When shall each man's good
> Be all men's aim, and universal peace
> Lie like a shaft of light athwart the sea.

This is the message that the Christmas-ship bears to Europe from the heart of America. Our neutrality is far, far deeper and larger than Europe dreams. It is far, far more than a national or international neutrality: it is a human neutrality which cannot be silent. Deep in our hearts, where we are neither Jew nor Greek nor Barbarian, but men of the new era, we are not so much concerned with the political or economical causes of the war, nor with the strategical phases of its conduct, as with its human side. We are appalled by the terrific loss of life and the pitiful wreckage of all that makes life worth living; we are profoundly moved by the spectacle of misery and suffering; above all, we are sorely troubled by the bitter and violent passions that are rending asunder the peoples of the belligerent nations and destroying the work of a half-century of peace and good will.

With the international situation we cannot, nor have we desire to, meddle. Toward it, we must, and will, maintain a passive neutrality. It is none of our business. But toward the human situation, our neutrality may, and shall, be active. We are so closely bound by human ties to *all* the peoples of Europe that we cannot stand aloof from their need and their distress, and our active sympathy and help can offend none of them.

To these human sentiments, we will never cease to appeal—not as a nation, but as men and women—with our reason and our prayers, as long as breath shall last. To this human distress we will never cease to minister while we have hands to labor. And this, with no pharisaical spirit of superiority, but with genuine, humble brotherliness—yet, not without the sincere hope that our fellowship and ministry may hasten the time when the demon of war shall be cast out and our brethren across the sea shall

again be clothed and in their right mind.

There is even a larger significance than this in the Christmas-ship, if our eyes may but see it. The star under which the ship is sailing is, in fact, the one bright star of hope in the whole dark sky. It signifies that, after all, even in the midst of wars and rumors of wars, the Prince of Peace is still supreme. *In hoc signo vinces!* The Christ-Child, after all, is the real ruler of the world—the ultimate power, with which mankind must reckon—and the Terrible Meek shall inherit the earth. "We have seen His star in the East and are come to worship Him." Isn't it strange, by the way, and a little significant, that in this twentieth century the star should come out of the West—that wise men from the West should carry the news of the nativity of the Prince of Peace back to the East?

Oh, yes, without doubt this is the highest, best message of the Christmas-ship. Now, more than ever, I would fain be one of its crew. Its regal pennant and its "Inasmuch" are not simply a message of Christmas cheer and Yuletide gifts to the widow and the orphan, not only the voice of America's full heart to stricken Europe; they are the pledge to all mankind that peace and love and brotherhood of man still shine in men's hearts, above the blackness and chaos of the primal passions.

"A hair, they say, divides the false and true;
Yes; and a single Alif were the clue,
Could you but find it, to the Treasure-house,
And peradventure to the Master, too."
—The Rubaiyat.

MILLENNIAL MUSINGS

Sometimes we indulge in musings, day dreams, in which we allow ourselves to imagine what a lovely world this would be if people only put into actual practice the things they know.

Ignorance is, surely, the unpardonable sin; yet, there are degrees of ignorance. We should define real knowledge as the realization of truth in one's daily life; that is, we know a thing so well that we live it.

Correspondents viewing the great European war from a safe distance at the rear speak of the marvelous perfection with which these gigantic modern instruments of destruction are organized. Every possible contingency has been thought of and provided for, even to putting double sets of suspender-buttons on the soldiers' trousers, so he may shift his galluses if they make one of his shoulders sore? And, have they provided for all his other wants as well? Have the northern hosts been guarded against the attractions of the Flemish maids as carefully as the Duke of Alva protected his Spanish infantry?

We have sometimes imagined that the day might come when the family physician would be the sanitary director of his clientele, and by his sagacious advice lead them along the paths that vert to Hygeia's temple; and, so, we should never be ill, but look on pain and disease and death as grim monsters of the fabulous age, contemporary with the dragons.

But, in the way of realizing this milennial vision stands an obstacle—the average human being doesn't want to live hygienically!

Once we published an account of a case of diabetes we had treated with some success. A distinguished retired army officer read it and as a consequence called upon us. We began to explain the regimen necessary, when he interrupted, to say: "I don't want any diet. I want you to give me a treatment that will allow me to eat anything I want, in any quantity!" We resigned.

Mr. Man doesn't want to stop drinking, or smoking, or working, or playing too much. What he wants of us is, the means to keep on as he has been living. Madam does not relish our advice to cut down her bridge parties, loosen her corsets, and quit gorging. She wants medicine to restore her youth, take off her fat, and enable her to keep it up until she has had enough.

They all come to us, not for reform, but to be enabled to go on sinning.

So far as sanitary living is concerned, and the inauguration of a millennium based thereon, we have concluded to postpone it until the curly head of sweet sixteen is as full of wisdom as is the snowy poll of sixty.

SOME BLADDER REMEDIES

There are four remedies that should be better known to the profession for their remarkable powers in certain pathologic conditions of the bladder.

Rhus tox is a wonder. It is essentially a woman's remedy, and specifically opposes atony o fthe vesical sphineter. Women suffer by no means rarely from leaky bladders.

There is a frequent stillicidium of urine that keeps their underclothing damp, and makes them, as one disgustedly exclaimed, "smell like a polecat." Every time they cough, sneeze, or make any movement involving a sudden strain, a gush of urine shoots out. The irritation of the urine induces intertrigo and pruritus. In this condition a mere fractional dose of rhus gives instant relief, and its steady use for a month or two often effects a cure. For some inexplicable reason, it has never proven equally satisfactory with men.

Just where rhus fails, delphinine succeeds. With men this leakiness is almost invariably associated with two other pathologic conditions, imperative impulse to urinate, and feebleness of the detrusor. The old man tells us he feels the call to urinate and can scarcely wait to get his clothing open, generally a shoot of urine soiling his clothes before he gets them out of the way. Then the urination waits, with peculiar sensations, for half a minute, perhaps, and then the stream dribbles between his feet, so slowly that in winter he is chilled before the operation is completed. Even when he thinks he is through, he finds a gush of urine soiling his garments.

A curious concomitant is that mental stress or labor, worry, or protracted mental labor, increases all this group of symptoms.

Under the use of delphinine, in minute doses, the function is frequently improved to the state it exhibited ten years previously. The bladder is better controlled, less immediate in its demands, better able to retain the urine, and the extrusion is more vigorous.

When either rhus or delphinine fails, in moderate dosage, we have cantharidin in reserve. It is emphatically a reserve, to be called upon only in dire necessity. It also is to be used only in very small doses—1-5000 grain, not more than seven times a day, and not more than a week, continuously, with two or three weeks' intervals during which milder remedies may be taken. Sodium cantharidate is perhaps the best form of this powerful agent. In too large doses it irritates the kidneys and bladder, exerting on the delicate tissues of the glomeruli and tubuli the same vesicant action as on the skin.

Sometimes there is slight leakage of albumin, without other signs of nephritis. If this occurs in weakly, relaxed, elderly patients, these small doses of sodium cantharidate will usually stop the loss of albumin and occasion an improvement of health that is almost marvelous. So, also, when there is a slight passive hematuria from any part of the genitourinary tract.

Whenever there is catarrh of the mucous membrane, and arbutin. Even without catarrh it is a useful and harmless tonic to the whole tract, from kidneys to meatus. It is hardl ynecessary to give more than a grain a day of this remedy although 4 grains may be taken with impunity. As with rhus, delphinine, and cartharidin, the best effects follo wthe minute doses—so minute that the homeopathist might claim them.

The effect of these remedies on the sexual function is doubtful. Most patients declare that no effect is manifested; and, in fact, weakness of this function is not necessarily or as a rule present with the group of symptoms above noted.

Who of our readers will give us the results of their own experience with bladder troubles and bladder medicines?

All service is the same with God—
With God, whose puppets, best and worst,
Are we, there is no last nor first.

—Browning

THE LUTE OF LIFE

I want to make a suggestion. If you have not bought a Christmas present for your wife, you can find nothing nicer to give her and nothing that, I am sure, she will enjoy more than a copy of the late Dr. James Newton Matthews' book of poems, entitled, "The Lute of Life."

Doctor Matthews' poems remind me of those of James Whitcomb Riley. Indeed, there are many good men—poets themselves—who think them even better, and I frankly confess that to me they appeal more than does the work of the great Hoosier. Perhaps it is because Matthews is a doctor and knew something about the doctor's life and wrote about it in a way that showed that understanding.

It is more than likely that many a doctor's wife will see this little note. If you do, my good madam, why not buy a copy of these poems for your husband for Christmas—unless you have already discerned symptoms that he is going to get a copy for you. We shall be very happy indeed, to fill all orders for these books, profits of which go to Mrs. Matthews, the doctor's widow.

Leading Articles

The Treatment of Croup

With a Discussion of Its Diagnosis

By V. E. Lawrence, M. D., Ottawa, Kansas

EDITORIAL NOTE.—We make no apology for reprinting this article, which was published in "The Alkaloidal Clinic" fourteen years ago. At that time it presented the claims of a new remedy—one which time and much clinical experience have shown to be of the greatest value, not only in croup but also in various other respiratory diseases. The article is, therefore, of historical value, quite apart from its exceeding helpfulness from a practical standpoint. One point we wish to emphasize—a point which Doctor Lawrence himself makes—that calx iodata is not offered as a cure for diphtheria. If there is a question as to the diagnosis, antitoxin should always be administered. As to the necessity for the use of that remedy there can be no equivocation, and, the diagnosis once made, there must be no delay. In every severe sore-throat, in every "croup," whether membranous or not, cultures should be taken and submitted to a competent laboratory man. If it is impossible to do this, then the physician's mistakes should be made on the side of safety—he should administer the antitoxin, then, without fail. With this statement Doctor Lawrence concurs.

THE article reproduced herewith first appeared in the September, 1900, issue of this journal. Several years ago I was asked by the editor to rewrite it for republication. As it was the result of a study of membranous croup and of diphtheria largely extending over the period following my graduation from the University of Michigan in 1883, and, since it covered a rather exhaustive survey of medical authorities upon the subject, I replied that the ten years intervening since its publication had done nothing more than to confirm the evidence there presented; and, furthermore, inasmuch as during the ten years before its appearance I had written numerous articles for the leading medical journals of the United States and of Canada regarding the dark iodide of lime, I rather hesitated to present the matter anew.

More recently, however, Doctor Burdick, managing editor of this journal, repeated the request; and, so, in appreciation of the benefits which I have derived from The Clinic, month after month, since the first number published, I will simply say to the reader that, so far as the article itself is concerned, I can not add to nor do I wish to retract from it as it originally appeared.

Many years have gone by—almost thirty—since my first fatal experience with membranous croup. It was in a case of consultation; and it was then as I beheld the agonizing death of the handsome 6-year-old boy, that I realized the awfulness of the disease and the almost helplessness of the doctor in trying to save his patient. It took two more such experiences, likewise in counsel, to fix attention on this disease, with its history, its treatment and its alarming mortality, indelibly in my mind. I began eagerly to search for, and with an almost abnormal relish absorbed everything I could lay my hands upon regarding diphtheritic croup and membranous croup. Then, eventually I became convinced that Sir Morrell Mackenzie made a most fatal mistake when he threw the weight of his great reputation upon the assertion that these two diseases were identical.

The appearance of my article in The Clinic precipitated editorial comments, for and against, in several of the large eastern medical journals, one of them being kind enough to say that the article was the best that lately had appeared upon the differential diagnosis of membranous croup and diphtheritic croup.

I do not claim to have been the first one to use the dark iodide of lime, but, so far as I know, I was the first writer to bring it before the profession. When he was a guest at my home, ten years ago, Doctor Waugh said that my articles upon this remedy for the first time had brought it to the attention of the profession and that he would make

an effort to have mention of it appear in the next edition of the United States Dispensatory. In this, I regret to say, Doctor Waugh failed to succeed. As a matter of fact, it is much to be regretted that so many of our textbooks are overconservative. Up to the present, after almost twenty-five years, during which period the medical journals have been speaking of this remedy in the highest praise, it is, so far as I know, mentioned only in the sixth edition of Shoemaker's "Therapeutics," and there only in reference to articles as presented by myself.

It was while practicing at Halstead, Kansas, that I first became aware of and first wrote regarding the dark iodide of lime, (calx iodata or calcidin, as it is now known) and I well remember saying to my wife that it was not often that a doctor residing in a small town had the opportunity of presenting to the medical profession an almost unknown drug as an almost infallible remedy for the cure of an almost uncurable disease; and added that, in payment for the vast storehouse of medical knowledge which I, in common with all other doctors, had inherited from our predecessors, I was determined to bring it to the attention of the world. My reward, indeed, has been in reading of the many lives saved through its use in the hands of other physicians.

In conclusion, I would once more emphasize the absolute necessity of bearing in mind that diphtheritic croup sometimes first attacks the trachea. In fact, since the first appearance of this article of mine, I have treated two cases in which it entirely confined itself to the trachea and did not attack the tonsils at all.

The rule to follow is, when the dark iodide of lime does not in a few hours produce beneficial results, to conclude that the case is one of diphtheritic croup and immediately to resort to antitoxin. In order however, to give the patient the benefit of the doubt, the administration of the dark iodide is continued.

My article, as it appeared in September of 1900, now follows *in extenso*, without quotation marks, with here and there perhaps some slight amendment in phraseology.

Probably there are few things in our professional life which make a deeper and more lasting impression upon our minds than the deathbed scenes of our first patients, and especially so if the objects of our solicitude chance to be beautiful little children struggling for life in the grasp of that so much dreaded destroyer of juvenile existence—membranous croup.

Doctor Eberle, in his "Diseases of Children" (published in 1841), in discussing membranous croup, says:

"In the long list of human diseases, there is none which presents a more painful scene of anguish and distress, or which excites more poignant feelings of sympathy in the heart of the physician, than the one now under consideration. I have witnessed the approach of death under a multitude of appalling forms, but in all the deathbed scenes which it has been my misfortune to witness I have never had my feelings so deeply affected as when looking upon a blooming child struggling under the ruthless grasp of this terrible disease."

My Unfortunate Early Experience With Croup

During the first years of my professional life, it was my lot to be several times called in counsel in cases of membranous croup. With one exception, these cases proved fatal, and the agonizing appeals to be seen in the eyes of these unfortunate little sufferers long after they were unable to articulate, and later the heartrending scenes accompanying their demise, overwhelmed me with sorrow and sent me home almost to a sick-bed.

The dreadful fatality of the disease, the agonizing symptoms and the futility of medical assistance made a most lasting impression upon my mind, and, without any especial determination upon the matter, I found myself almost instinctively turning my thoughts to a consideration of the disorder.

As the years went by, these cases fell into my hands, and my efforts to save them were accompanied with such long and trying scenes and such fatal results that I came to look upon the disease as the most to be dreaded in the long list of maladies peculiar to childhood. But while I lost my patients I still profited by experience.

My views of the cause of the disease and the line of treatment which gave the best results became more mature; and, after some years of study, observation and thought, I came to the conclusion that the views of the older authors, that the disease is a local inflammation accompanied by a fibrinous exudate (and in no sense a diphtheritic exudate), were correct.

In accordance with this theory, I began the use of alterative remedies; and, while I still lost cases, a larger percentage were

saved. I came to rely upon the muriate of ammonia [ammonium chloride] as the most efficient. Little by little I became convinced that, if a more active resolvent could be found, better results could be obtained.

So, next I began to use the iodide of calcium (or lime), a salt but little employed by the profession. This is of a slightly yellow color and readily soluble in water. I found this remedy a more active resolvent than ammonium muriate and by its use saved a still larger proportion of my patients. Still, I found that by itself the remedy was not sufficient and that it was necessary for me to remain with my patients during the night and resort to the use of slacked lime, and other expedients.

The next step forward was the employment of a remedy which up to the present is not mentioned in our Materia Medicas or even in the latest edition of the United States Dispensatory.

This remedy is the dark iodide of lime. It is of a dark color, is readily decomposed by the action of light, and doubtless is the most active alterative known to medicine.

It was about seven years ago that I first used this salt in the treatment of membranous croup, and since that time all difficulty in curing every case which has fallen into my hands has ceased; and I am fully of the opinion that nowhere in the domain of therapeutics have we a remedy more deserving of the name "specific."

During these seven years I have treated not less than 25 or 30 cases of this fatal disorder, without a single failure and without remaining at the bedside of my patient for a single hour. Under the use of the dark iodide of lime, the symptoms disappear and the patient moves forward to an easy and sure recovery. The dread which I formerly had of this malady has entirely disappeared and I take charge of these cases with as much assurance of recovery as though the little one were suffering only with measles.

Two Serious Obstacles to the Use of This Remedy

There are two obstacles which stand in the way of the profession's quickly accepting this sovereign remedy. The first has already been mentioned, namely, the fact that the works on therapeutics entirely fail to mention the salt; the nearest they come to it is in the description of the yellow iodide of lime (or calcium). Scarcely any of the wholesale drug-dealers carry this drug or know anything of it, and so, the physician endeavoring to obtain it at last becomes discouraged.

There is, however, a second, and a more serious, obstacle. I refer to the general belief among physicians and medical writers that membranous and diphtheritic croup are identical diseases.

There can be no doubt but that there are cases of diphtheritic croup which so closely resemble membranous croup that it is impossible to arrive at a definite diagnosis. I refer to those cases of diphtheria in which the exudate confines itself to the trachea and smaller tubes, and fails to appear upon the tonsils. But these cases are so rare that I have met with but one; and here the exudate appeared upon the tonsils about the fourth day. I mistook this for a case of membranous croup, treated it with the dark iodide of lime, and lost the patient, not being able to diagnose the diphtheritic character of the disease until the tonsils became involved, which was only a few hours before death.

Still, there are a few cases of diphtheria which fail early to attack the tonsils. The exudate of membranous croup, however, never appears upon the tonsils. Furthermore, the exudate of membranous croup is fibrous and as elastic as rubber, while that of diphtheria is cellular and not elastic.

It is highly important that no error in diagnosis be made if satisfactory results are to be obtained from the use of the dark iodide of lime; for, while this remedy is almost certain to cure any case of membranous croup in which it is resorted to within reasonable time, *it possesses no curative virtues in diphtheritic* croup.

I know I am attacking well-fortified ground when I assert that the diseases are not identical, and I am sure that the reader will be glad to hear any corroborative testimony I may be able to produce. And this I am all the more anxious to do, for the reason that as long as the physician adheres to the belief that membranous croup and diphtheritic croup are not distinct diseases he is not likely to call to his aid the assistance of this most valuable remedy I am advocating. Let us see.

Some Corroborative Testimony

Dr. Geo. W. Gray, in an article written for the "Reference Handbook of the Medical Sciences," volume II, page 340, writes:

"The profession has always been, and still is, divided upon the question of the identity of these two varieties [of croup], one portion claiming that the primary is purely local and the secondary a constitutional affection; while another portion, with equal confidence, asserts that they are one and the same disease with different manifestations.

"Much of the confusion that exists upon the subject is due to the fact that authorities are not agreed as to what group of symptoms shall constitute either malady. Typical cases of the two varieties of croup under consideration are distinct enough, but in localities infected with diphtheria the clinical history and the anatomical appearances shade into each other so gradually that it is not always easy to determine to which class a given case belongs, especially in the early stages, the time when it is most desirable to make an exact diagnosis.

"Dyspnea, the most prominent and important symptom, is common to both varieties of the disease. Glandular enlargements, nasal discharges, albuminuria, and paralysis are the distinguishing features of diphtheria. Fatal cases of diphtheria in which the larynx is not involved are common. Primary croup, on the contrary, is usually a laryngeal affection from the first and causes death from suffocation. In short, the latter is simply croup, and nothing else; while diphtheria, while occasionally complicated with croup, is something more.

"Many of the older members of the profession who had opportunities for studying croup when and where diphtheria was unknown and did not exist, and whose opinions are entitled to great respect, recognized the clinical difference between the two affections. They did not look upon croup in those days as being contagious, nor did they observe any of those constitutional symptoms so prominent in diphtheria and so characteristic of septicemia.

"There is an acute, noncontagious and noninfectious disease of the larynx, local in its nature, confined to the upper air-passages, not epidemic, characterized by the formation of false membrane—which causes the principal symptom, dyspnea, and very often destroys life. This is primary croup, and at the present time it is of comparatively rare occurrence.

"Second, there is an acute, contagious, infectious, and often epidemic affection, presenting a membranous deposit in the fauces, larynx, and other localities, accompanied by symptoms of blood poisoning, such as enlarged glands, nasal discharge, albuminuria, paralysis, debility, and coma. This is diphtheritic, or secondary, croup. For more than a quarter of a century it has been the prevailing variety of the affection, and, like the preceding variety, it is very fatal."

Henoch, in his "Diseases of Children" (p. 140), says:

"My opinion, that croup is the highest development of acute laryngitis, is opposed to that of many authors, who regard it as always diphtheritic. I will acknowledge that croup has become more frequent since the epidemic and endemic spread of diphtheria, but I see herein no reason to deny every other mode of development. I knew from experiments that croup can be produced in rabbits and dogs by the application of caustics to the tracheal mucous membrane and the inspiration of hot vapor of water."

Ellis, in "Diseases of Children," likewise supports the contention, as follows:

"Similarity of cases here and there does not remove the great broad line which, looking to the totality of the symptoms, appears to me to run plainly enough between the two. In diphtheria, the exudation is formed upon the tonsils and pharynx and spreads thence upward and downward. Whereas, in croup, I recognize a disease sporadic and doubtfully, if at all, contagious; of a rather sthenic character at first, in which not the tonsils and pharynx but the larynx and trachea are the parts first attacked."

Parallel Symptomatology

The following is a clipping from a medical journal, the author of which I cannot now recall. It corresponds with my own observations:

Membranous Croup	*Laryngeal Diphtheria*
Is due to exposure to cold.	Due to a specific poison.
No period of incubation.	Period of incubation 1 to 5 days.
Is a local disease, consisting of an inflammation of the mucous membrane of the larynx, with exudation of false membranes.	Is a constitutional disease, where bacteria are deposited and form false membranes on the mucous membrane of the larynx.
The false membranes, beginning in the larynx, may extend from there to the pharynx.	The false membranes exist at the beginning of the disease in the pharynx, and extend from there down to the larynx, and frequently up into the nose.
Affects children only.	Attacks adults also.
Begins most suddenly at midnight, with croupy cough, etc.	The child has been ailing 3 to 5 days before croupy symptoms appear.
The child loses its strength only after frequent vomiting and toward the close of the disease.	The child becomes weak from the very beginning, and loses strength rapidly, even before appearance of croupy symptoms.

Never any constitutional symptoms, except high fever symptomatic of the violent larynx inflammation) and near death—symptoms due to want of oxygen.	Constitutional symptoms from the very beginning, moderate fever long before laryngeal symptoms, and the child often dies from septicemia before death by suffocation sets in.
Never any complications.	Often nasal diphtheria, sometimes endocarditis, always septicemia.
Albumin in the urine only after dyspnea has become great.	Albumin in the urine from the very beginning of graver symptoms.
Never enlargement of glands.	Enlargement of glands from very beginning, and never absent.
*Never contagious.	Very contagious.
*Never followed by any sequelæ.	Frequently followed by local and general paralysis
*Rapid convalescence.	Very slow and tedious convalescence.
False membranes soluble in potash solution, hardening in sulphuric acid.	False membranes soluble in sulphuric acid, hardening in potash solution.
Membranes consisting of new formations of cells.	Membranes consisting of masses of bacteria and cells.

"These differences are not the result of artificial work, but they appear in every case of either disease, and are taken from nature; and I hope that I have convinced you that membranous croup and laryngeal diphtheria are by no means identical, but totally different diseases, distinct from each other. And let me impress upon you once more the fact that, while the former is a local, the latter is a constitutional, infectious, contagious disease."

It seems to me that the diagnostic points, as above enumerated, are sufficiently distinct to enable the physician in all but the rare cases, already described, to distinguish between them.

Nature and Mode of Use of the Compound

We will draw this article to a close by giving a short history of the remedy so efficient in curing membranous croup, and in doing so will quote from a monograph now before us. "The iodide of lime is a chemical compound discovered by Dr. James R. Nichols, of Boston, in 1855. It is a preparation entirely distinct from the iodide of calcium of commerce. The latter is a stable salt of calcium and iodine, of light color, and of very little, if any, therapeutic value. Iodide of lime, on the other hand, is an unstable combination of these elements, of a dark-brown color, with *a large molecular excess of iodine.*

"This supersaturation of iodine is the essential feature of iodide of lime, and can only be secured by its special process of manufacture.

"As above stated, the iodide of lime is an unstable preparation of lime, supersaturated with iodine. The chemical combination is a very feeble one and the compound breaks up into its component parts immediately on coming into contact with acids. When the iodide of lime is taken into the system it decomposes on meeting with the acids of the digestive fluids and thereby sets free the iodine just where it is wanted and can be most easily absorbed. In this particular feature of its action lies the superiority of iodide of lime over the many other preparations of iodine."

This salt is said also to have the power to cause absorption of fibroid tumors of the uterus, quickly diminishing the troublesome hemorrhage and finally causing the growth to disappear.

In using the remedy, I add 10 or 15 grains of the drug to 4 ounces of water. Of this mixture I order from one to two teaspoonfuls every thirty minutes until the patient feels better, then less frequently.

It is not necessary to stir up the deposit of white lime which will fall to the bottom of the cup, because the iodine, which is the active principle, is in solution and the lime is worthless. The remedy should be protected from the light, as it quickly decomposes. The iodide of lime is not poisonous.

Should an emetic be needed, I prefer about 3 grains of turpeth mineral, repeated every one-half hour until it acts.

The use of dark iodide of lime will certainly revolutionize the treatment of membranous croup, and wherever its virtues are known the dreadful mortality of this disease will disappear.

The Philadelphia *Medical World* says editorially:

"The dark iodide of lime is a specific in membranous croup."

A medical writer in *The Charlotte Medical Journal* says:

"I believe the remedy is the most reliable ever used in membranous croup."

Dr. A. G. Beebe writes that, with its use, there is no reason why any case of the malady should fail to make a good recovery. He has used it in many cases, without a single failure.

Dr. L. S. McMurtry, of Louisville, says: "I find it to be an alterative of exceptional value, readily borne by the stomach and yielding prompt and positive results."

Dr. Wm. F. Waugh, of Chicago, author of "The Treatment of the Sick," writes me that the remedy will be given a prominent place in the next edition of his book.

*The conditions marked with an asterisk can not serve of course, for diagnostic purposes.—Ed.

The Diagnosis of Gastric Diseases

Some Points for the General Practitioner

By Boardman Reed, M. D., Alhambra, California

Author of "Diseases of the Stomach and Intestines"

WITH increasing frequency, physicians are complaining to the editors of medical journals that, in spite of the numerous technical articles contributed by learned gastrologists, the everyday general practitioners are not being told how safely and successfully to treat the ordinary cases of indigestion occurring in the great majority of patients who cannot or will not pay the fee of a specialist. When such a doctor tries to fortify himself by studying the text-books on the subject, he finds that, as a preliminary, they insist that a chemical and microscopical examination of the stomach contents shall be made after a test meal, so that the quantity of hydrochloric acid and pepsin may be determined. Then, when these are deficient, these agents are to be prescribed; or an alkali is to be administered instead for the more serious cases where there is an excess of hydrochloric acid, thus suggesting the possible presence of ulcer threatening either in the stomach or the duodenum. This gives good grounds for complaint.

Nine-tenths of the men in general practice today, even though graduates of leading medical colleges, have never seen a chemical analysis of stomach contents made. Few of them have been able to attend postgraduate courses or have provided themselves with the necessary equipment for making such examinations. In consequence, the large army of dyspeptics unable or unwilling to pay consultation fees must take pot luck, and go on suffering when the doctor's guess happens to be wrong.

The Writer's Own Experience

In my own early experience in Atlantic City, with a host of wealthy finical patients who lived high at hotels and were virtually all suffering from more or less chronic indigestion due to overeating and little or no exercise, and, yet mostly unwilling to reform their diet or submit to lavage or to any examination involving the passage of a stomach-tube, the need of less disturbing methods of examination soon became apparent, at least in the less urgent cases.

Fortunately there was a dull time during the early winter, the off-season, when postgraduate study at the medical centers was practicable. Convinced that simpler methods might be discovered or devised for the study of the gastrointestinal tract and its diseases, which concern directly or indirectly probably two-thirds of all the chronic affections in this country, I for some years spent a large part of my winters in New York, Chicago, Berlin, and Vienna in the investigation of this class of troubles. In Ewald's clinic especially, in Berlin, where there was always a superabundance of material to be studied, much experimentation was done to find simpler methods of examination for determining the essential points in diagnosis without too great a dependence upon painful or otherwise objectionable instrumentation.

Especial attention was devoted to external methods of ascertaining the boundaries of the abdominal organs, so as to learn at least approximately their size and position and the motility of the stomach and colon, in the numerous hypersensitive or overfussy patients who will not tolerate the use of the stomach-tube. Later, an article by Dr. A. L. Benedict, of Buffalo, gave me a valuable hint as to an easy external way of deciding whether there is an excess or deficiency of the gastric juice, by giving a teaspoonful of sodium bicarbonate and then auscultating to learn the amount of effervesence produced.

When, more than ten years ago, in lecturing on gastrointestinal subjects at the Temple University, Philadelphia (one of the newer medical institutions, which, however, was even then more up to date in that respect than many of the older ones), I emphasized the practical simpler methods, and later, in my book on these subjects, gave a fuller exposition of them than was to be found in other similar works.

The most frequent as well as the most serious mistake that is made, in the absence

of accurate knowledge as to the condition of the stomach, is, the assumption that indigestion means a deficiency of the gastric juice. The usual resulting prescribing of pepsin, if given alone, generally is useless; when given combined with hydrochloric acid, it often helps when there happens to be a lack of the normal secretion; but this is not a very common condition, or at least not the most common, but the combination is pretty sure to do harm when, as in the majority of cases among well-to-do people, who usually eat too much, there is a normal or excessive quantity of gastric juice already being secreted.

The danger here is in the fact that hydrochloric acid is the most powerful stimulant of the gastric glands and tends to increase markedly the secretion of that acid, with the decided imminent risk of a peptic ulcer, near the pylorus, on either the stomach or duodenal side of the boundary. And it is now a thoroughly established fact that in a large proportion of cases a neglected ulcer later becomes the seat of cancerous degeneration.

A still larger number of careless prescribers and most of the people who doctor themselves or let the druggist decide, depend, for any form of indigestion, upon some of the advertised remedies which are lavishly furnished by the makers to the doctors for distribution to their patients. And these remedies almost always are unscientific and nearly inert combinations of mutually antagonistic drugs, such as pepsin or papaya and one of the pancreatic preparations, which, to the extent of its activity, neutralizes the former; and, lest it fail to do so, some of these mixtures include a little soda, still further to destroy the effect of the pepsin.

Now, of course, a thoroughly expert examination of a sample of the stomach contents, as well as of a stool after a test meal, is very desirable in every case of stubborn indigestion; but, when for any reason it is not practicable, the doctor should know how to do the next-best thing.

He is generally fairly well trained in percussion and could always acquire a large fund of useful information by proceeding as follows:

How the Average Practitioner Can Test the Stomach

Let the doctor direct his patient to take nothing after the evening meal, which should be light and eaten not later than 7:30 p. m., and then on coming the next morning, take the usual test breakfast—(2 ounces of stale bread and 1 1-2 tumblers of water)—with no other food, drink or medicine till after this has been tested one hour later. The stomach should be empty when the test is made and the food eaten the day before be all out, as it normally is after the night's rest. But sometimes there may be abnormal retention from dilatation of the stomach, from marked atony or from obstruction at the pylorus.

If there should be any noteworthy retention, that is, more than a few spoonfuls of fluid retained, it would usually be revealed by the splashing sound produced by tapping gently over the abdomen. The locality of the splash and its extent thereupon would indicate roughly any enlargement or displacement of the organ. Much splashing would show a marked weakness of the stomach-muscle, its motility, and would be present practically always when there is a marked displacement or enlargement.

To Ascertain the Presence or Absence of Hydrochloric Acid

One hour after the patient has taken the test breakfast, give him a level teaspoonful of sodium bicarbonate dissolved in a tumblerful of plain water (not ice water), and let him lie down on a couch or table, with the abdomen completely uncovered. Then, after massaging the parts for two or three minutes, a decided effervescence, in case the normal hydrochloric should be present, would be discoverable by auscultation (as Doctor Benedict recommends) or be more strikingly shown by percussion when compared with the percussion note obtained before the soda was given.

If there should not be any increase of the tympany nor any bubbling discernible through the stethoscope, it would be positive proof that there was no free acid of any kind in the stomach, either free hydrochloric acid or any organic acid; though it is well in such case to give in addition 7 or 8 drops of strong hydrochloric acid dissolved in another tumblerful of water afterward, when the increased tympany and bubbling then produced would be confirmatory. When the increased tympany or bubbling following the ingestion of the soda solution alone is very pronounced, it will evidence the presence in the stomach of a correspondingly large amount of free acid

with often a resulting obstruction from spasm of the pylorus, and this acid in the absence of signs of much fermentation (such as an excessive amount of gas, with a heavily furred tongue and usually a lack of appetite) could safely be assumed to be hydrochloric.

If these signs of fermentation should not be very marked, there might be some question as to the character of the excessive acid thus proved to be present, since it might be lactic or other organic acid; and before basing any very active treatment upon the finding it might be wise to have the chemical test made.

The opposite result, however—finding an absence of acid—could be surely relied on as proving a decided deficiency of the normal secretion, so that the case would be clearly one for tonic restorative treatment, with at least small tentative doses of hydrochloric acid, combined best with a good glycerole of pepsin or some active preparation of papaya (such as papayotin), and often the addition of a bitter.

To avoid the danger of converting the hypochlorhydria into hyperchlorhydria or a possible ulcer, frequent repetitions of this simple test could be made before increasing the dose of the acid or continuing even the small dose too long; though cases occur in which cancer or an old chronic gastritis has destroyed the gastric glands entirely, leaving the condition classed by Einhorn as achylia gastrica. In this condition, the digestive aids may need to be persisted in indefinitely, or so long at least as they prove effective.

In giving an alkali to neutralize hyperacidity, the dose will need to be large. Less than 20 or 30 grains of soda or magnesia may fail and even aggravate the condition, as has often occurred in my experience, increasing the excessive secretion of the acid. This indisputable fact, and the success of very minute doses of tuberculin and the sera, may seem to lend support to the Homeopathic theory; and I proved by a paper in *The London Practitioner* more than twenty-six years ago that all active drugs have a two-fold action, according to the dosage.

"A PRETTY GOOD WORLD"

This world's a pretty good sort of world,
  Taking it altogether,
In spite of the grief and sorrow we meet,
  In spite of the gloomy weather.
There are friends to love and hopes to cheer
  And plenty of compensation
For every ache for those who make
  The best of the situation.

There are quiet nooks for lovers of books,
  With Nature in happy union;
There are cool retreats from the noontide heats,
  Where souls may have sweet communion;
And if there's a spot where the sun shines not
  There's always a lamp to light it,
And if there's a wrong we know ere long,
  That Heaven above will right it.

So it's not for us to make a fuss
  Because of life's sad mischances,
Nor to wear ourselves out to bring about
  A change in our circumstances.
For this world's a pretty good sort of world,
  And He to whom we are debtor
Appoints our place, and supplies the grace
  To help us make it better.

Acute Prostatitis and Its Treatment

By William J. Robinson, M. D., New York City

Editor of the "Critic and Guide," and "The American Journal of Urology;" author of "Never-Told Tales," "Sexual Impotence," and other works

ACUTE prostatitis is, unfortunately, a rather frequent complication of gonorrhea. There is a great difference in the opinions of venereologists as to its frequency, some putting it as low as 3 percent, others as high as 92 percent. This apparently absurd difference is really more apparent than real, some applying the term prostatitis to the mildest inflammation of the prostate gland, even of a catarrhal, transient character, others applying the term only to suppurative prostatitis and prostatic abscess.

If we apply the term prostatitis to every mild congestion or inflammation of the prostate gland, then we might consider it a natural accompaniment of every case of posterior urethritis. If, however, we apply the term only to those cases in which there appear decided subjective symptoms, with an accompanying unmistakable enlargement of the prostate gland, then I should say that the frequency is about 20 percent.

I consider it absurd, however, to apply the term acute prostatitis only to those cases in which the prostate gland is severely suppurating, or to consider acute prostatitis synonymous with prostatic abscess as some do. Even when a prostate gland secretes pus in profusion, that does not indicate a prostatic abscess. When the urethra secretes pus profusely, we use the term urethritis, and not urethral abscess. As long as the ducts of the prostate gland are open, so that the pus finds its way readily into the urethra, we have no right to speak of prostatic abscess. It is only when the prostatic ducts become clogged, so that the pus accumulates in the prostate gland, and there is, perhaps, destruction of tissue, that we have a right to speak of prostatic abscess.

Prostatitis a Serious Complication

I said at the beginning that prostatitis is, unfortunately, a rather frequent complication of gonorrhea. Of course, every complication is unfortunate, but prostatitis is particularly so, because it is that complication which makes chronic gonorrhea one of the most obstinate, sometimes one of the most maddening conditions to treat. Any gonorrhea in which the prostate gland is not involved is comparatively readily curable; for, applications to the urethral canal are readily made, and by the modern methods of dilatation-irrigation and by massage, aided perhaps by vacuum treatment, we can lure the gonococci from their hiding-places and destroy them.

But, once the gonococci penetrate the prostate gland, then we have an entirely different condition to deal with. We cannot apply medication directly to and into the prostate gland, by no method of massage can we be sure to express every little subdivision and duct of the prostate gland; and I am sure that it was the infection of the prostate gland that made Ricord say that we knew when a man got gonorrhea, but only the Lord knew when it would be over.

Besides the much more hidden and labyrinthine recesses which the prostate gland presents to the germs, the latter seem to find a richer soil in it than they do in the urethra and the urethral glands, and for this reason it becomes so hard to dislodge them. All those long-dormant cases in which the man was free from any symptoms for years, a gonorrheal attack suddenly coming on after drinking or sexual intercourse, are cases of prostatic infection. The prostate gland is the germ's best hiding-place; and, just as epididymitis is the most important complication so far as the race is concerned, so prostatitis is the most important complication so far as the wife is concerned; for, infection of the wife usually results, not from an uncured urethritis, but from an uncured prostatitis.

Symptoms of Prostatitis

The advent of acute prostatitis may be very gradual, so that the patient has virtually no subjective symptoms, or perhaps only an aggravation of the symptom caused by his posterior urethritis. He may feel greater discomfort in the perineum, a sense of weight and dragging down, difficulty in sitting, an inclination to walk with spread legs, etcetera. Or, the attack may come on very violently. He will feel a ter-

rible weight and heat in the rectum, become feverish, and, perhaps, have a chill.

In a severe acute prostatitis, the temperature may go up to as high as 103 or 104 degrees F. The patient is constipated, and when his bowels move the pain may be excruciating. The urethral discharge, if it was present before, frequently stops entirely, though this does not happen so frequently as with epididymitis. Mere touching of the perineum is painful, while the pain caused by inserting the finger into the rectum and touching the prostate gland is unbearable.

The prostate gland feels hot, throbbing, hard, tense, and fills out the entire rectal cavity, sometimes to such an extent that defecation is not only painful, but impossible in some instances. By sweeping the finger around the prostate gland, you have exactly the same sensation as in examining the vagina during labor when the child is at the outlet of the pelvis.

Besides difficult defecation, pain on urination or partial and sometimes complete retention of urine, the pain is severe, not only upon pressure, but is spontaneous, and the patient asks for relief, which in some instances can be afforded only by morphine. The pain, instead of being located in the perineum and rectum, may also radiate to the small of the back, to the glands, penis, testicles, and thighs. Instead of being uniformly enlarged, only one-half of the prostate gland may be swollen, the other half being almost normal.

After lasting for several days in about the same condition, prostatitis may pursue one of three courses: (1) it may end in complete resolution; (2) it may end in an abscess; (3) it may pass gradually into chronic prostatitis. Neither the first nor the second termination is very common; the most common one is the third one.

Treatment of Acute Prostatitis

Put the patient to bed. As a rule we find him there, but if we do not we should make him go there. Local treatment of the urethra should be stopped, although this is not so imperative as it is in epididymitis. However, the internal treatment, on the contrary, should be continued. Unless the patient is so sick that his stomach cannot stand anything, the santal-oil preparations should be continued. They diminish the dysuria, render the urine bland, and have, apparently, a beneficial effect upon the prostatitis itself.

Magnesium sulphate, in 1-dram to 2-dram doses four times a day, should be given regularly. This prevents constipation, and has a beneficial effect on the fever and the toxemia. If the fever runs above 101 or 102 degrees and there is severe headache, I invariably give some of the synthetic antipyretics, such as aspirin, phenacetin, antipyrin or pyramidon. These not only have a symptomatic effect in reducing the fever, relieving the headache and making the patient feel altogether more comfortable, but they also diminish the pain in the prostate gland and materially shorten the course of the disease.

In severe cases of prostatitis, we can but ill get along without any antipyretics. If the pain in the prostate gland is so severe that the patient is unable to sleep, restlessly tossing about day and night, we are forced occasionally to give a hypodermic of morphine; although I prefer to give the morphine in the form of suppositories of the following composition:

Morphinae sulphatis	gr.	1-3
Extracti belladonae	gr.	1-3
Olei theobromae	grs.	20

Less than 1-3 of a grain of morphine has no effect in a real case of acute prostatitis demanding an anodyne.

Leeches to the perineum are favored by many physicians, and they frequently afford immediate relief. I believe, however, that we can get along without them. Ice to the perineum is comforting and not injurious. When it comes to rectal douches, however, I prefer hot water to cold. The resolution seems to be brought about more rapidly by the use of heat than by the use of cold. It is true that when a prostatitis is to terminate in an abscess the hot-water enemas or applications by means of the psychrophore often will hasten this; but this is no misfortune, for, if an abscess is to take place and to break, the sooner this occurs the better.

The hot water to the prostate gland may be applied as an ordinary enema, about 6 ounces, containing 10 drops of laudanum and 10 grains of antipyrin, being injected and retained for about ten minutes; or it may be applied by means of the rectal psychrophore, hot water being circulated for about ten minutes.

Suppositories of mercurial ointment and ichthyol have often been recommended and used, and I have made use of them many times myself; still they irritate the rectum badly, sometimes very badly, and the bene-

fit derived from their use seems to be too small to outweigh the damage. I have, therefore, given them up altogether, and the only suppository that I use in acute prostatitis is the following:

Iodoformi.....grs. ij
Antypyrini.....grs. v
Morphiae sulphatis.....gr. 1-4
Label: Insert one three times a day.

The morphine, of course, has a tendency to constipate, but this is overcome by the magnesium sulphate which is administered through the course of the disease.

Some of our German colleagues advise starting with massage as soon as the hyperacute symptoms have subsided. I am opposed to it in any stage of acute prostatitis, as it may produce an exacerbation of the trouble or may set up an epididymitis. Massage of the prostate gland is distinctly a measure reserved for chronic conditions of the gland. Of course, if there are boggy, fluctuating places in the prostate gland which on gentle pressure yield a discharge of pus into the urethra, such expression may be performed; but this is really a different procedure from what we ordinarily understand by massage. If by gently pressing the prostate gland we are able to express pus into the urethral canal, we should do it twice or three times a day, following this procedure by a very gentle irrigation with a 1:4000 potassium-permanganate or a 1:1000 silver-nitrate solution.

Prostatic Abscess

If prostatitis is to terminate in an abscess, all the symptoms we have described become aggravated. There is a great elevation of temperature, although some prostatic abscesses without fever have been described. There is a great increase in the heat, pain, and throbbing of the prostate gland. There is excruciating dysuria, headache, thirst, dry throat, and there may be complete retention of urine.

The prostatic abscess may break into the urethra or into the rectum, or into the perineum. Sometimes it breaks in both directions, into the urethra and the rectum or perineum, thus forming a urethral or urethrorectal fistula. When the abscess breaks spontaneously into the urethra, there is a great gush of pus, generally mixed with blood, and this happy event is followed by almost immediate diminution of all the symptoms.

If the abscess does not break within a day or two and the fever goes up high, the best thing to do is, to incise the prostate gland through the perineum. But, if the prostate points into the rectum and there is a distinct fluctuating mass felt by the finger, then it is best for the physician to incise the prostate gland through the rectum.

The rectum may be irrigated with an antiseptic or a simple saline solution until it is absolutely free from any fecal matter, then a bistoury is plunged directly into the fluctuating mass, and the prostate gland is expressed as much as possible. The healing is less troublesome than when the incision is made through the perineum, and this method will be the one which the general practitioner will choose.

As we said before, an acute prostatitis may end in two or three weeks in complete resolution, so that there is, apparently, no sign left of the inflammation. As a rule, however, the symptoms subside gradually and the acute prostatitis passes over into subacute or chronic prostitis, the discussion of which will be taken up in another paper.

THE GHOSTS

The ghosts of my youth are haunting my autumn—
The sighing wind and the sobbing rain;
I hear them come in the dusk, and mutter,
Searching the land for their loves again—
For the pale new rose and the green vine twining,
For the beautiful grass and the singing grain;
Out of the gray of the day they wander
Over the land for their loves again.

The ghosts of my youth are haunting my heart—
The simple trust and the dreams long slain;
I feel them come in the wind and the water,
Searching my heart for their boy again—
For the wondering child with the eyes of laughter,
For the glorious joy of untouched pain;
Out of the dusk and the rain they wander,
Searching my heart for their boy again.

—*Harper's Magazine.*

Dementia Præcox

A Plea for Therapeutic Research

By Bayard Holmes, M. D., Chicago, Illinois

EDITORIAL NOTE.—No man has recently aroused more interest in the study of dementia præcox than Doctor Holmes. He has pointed out the diagnostic value of the Abderhalden reaction, and he has brought to America Lundvall's nuclein and arsenic treatment. He has an intense personal interest in the solution of the problem of cure, which does not seem to him to be a forlorn hope. In view of the importance of the subject, it is to be hoped that this paper will be carefully read by thousands of physicians.

THERE is no disease, not even general paresis, that finds the patient and the medical profession in so helpless, hopeless and pitiable a condition as dementia præcox does. There is no disease that costs the state a larger amount in care and custody than this disease. The annual expenditure for it alone is one-fourth the state budget in some of our states. It is a condition for which there is little or no hope of recovery, and for which there are at the present time meager efforts at cure.

General Remarks

I should like to present a matter which has occupied my attention and best efforts at study and analysis for a considerable time. I must beg a careful reading of the subject, and some patience, if I present the matter in a very rudimentary and schoolmaster-like manner.

Recovery from any infectious process is the result of an activity on the part of the tissues of the body. It is frequently followed by immunity. Sometimes this effort is followed by an increased susceptibility.

Immunity seems to be a result of a defensive ferment reaction on the part of the organism, as demonstrated by the work of Emil Fischer and his worthy assistant, Emil Abderhalden. This reaction is brought about in some manner by the tissues of the body and by the blood in their efforts so to modify the albumin of the infectious process as to promote its excretion. Among other changes in the blood, which have been made the basis of tests such as the Widal reaction for typhoid fever, the Wasserman reaction in syphilis, the Freund-Kaminer precipitin reaction in tumors, and other less familiar methods, a catabolizing ferment is produced which acts upon the molecules of the toxic albumin, to wreck them and produce excretable molecules of peptone, polypeptone, and amino acids. Albumin molecules themselves are colloid and cannot escape from the circulation until they are so broken up as to form soluble peptones and amino acids.

Each albumin, toxic or not, is molecularly individual and unlike any other albumin molecule, whether in the human body or not. This individuality is dependent upon the relation toward one another of the various atoms of which the molecule is composed, just as the individuality of a house depends upon the relation of the brick, the boards, the window-frames, the doors, and the rafters. Out of the same material any number of quite different houses can be constructed.

Albumins Numerous, and Each Has Its Key

The formula of albumin ordinarily is written thus, $C_{720}H_{1134}N_{218}S_5O_{248}$, and its molecular weight is given as anywhere from 15,000 to 16,750. It is at once obvious to anyone at all familiar with the philosophy of combinations that so many elements give abundant room for an almost infinite number of distinct and separate albumins, differing from each other in structure, in form, and presumably in function. Even with only 20 atoms the possible combinations, as shown by Abderhalden, require for their expression 19 digits, namely, 2,432,902,008,176,640,000.

When any albumin enters the body, either as the material of disease or as the result of an experimental injection into the subcutaneous tissue or one of the body cavities, a ferment is aroused in that body which is perfectly adapted to breaking down, wrecking or catabolizing the albumin which was injected—and that albumin alone. This relation is aptly illustrated by the relation between the Yale lock and its key.

All Yale locks are much alike in general form and structure, just as all albumins are much alike. But they are each essentially different from every other Yale lock. So it is with the keys. Every Yale-lock

key looks much like every other Yale-lock key, and yet, each key unlocks its own lock, and no other.

Exactly in this manner each ferment wrecks or breaks down its own albumin molecule, and no other. If two distinct albumins—for example, the albumin of human liver and the albumin of hog's liver—are injected into an animal at the same time, two ferments will be produced in the body, the one to wreck the human albumin, so that it can be excreted, the other, to wreck the hog's-liver albumin, so that it also can be excreted.

The Protective Function of the Ferments

In another respect, also, the ferment resembles the key of a Yale lock, in that the key is not used up by the process of unlocking and it is perfectly good for the unlocking of any number of identical locks. So is the ferment adapted to breaking down or catabolizing any number of identical albumin molecules, without any loss of energy to itself, and apparently without any change.

This protective catabolizing process is necessary to the excretion of the toxic albumin, and it must have been one of the organism's primeval functions. It began, no doubt, in the lowest forms of cellular life, when the ameba took into its body, for example, the albumin of the diatome; the albumin of the diatome was colloid, foreign and unassimilable. It was necessary first to break it down into the nutrient and perfectly assimilable amino acids.

This process still is carried on by the mucosa of the digestive tract in the higher animals, and a modification of this process brings about the defensive ferments for the elimination of the toxic albumins in the blood.

All albumin molecules are large and colloid; that is to say, they are unable to pass through a dializing membrane or escape from the blood to the secreting and excreting apparatus of the body. The breaking down of the toxic albumin molecule is the prime function of the ferment. The ferments which have accomplished their purpose remain, however, for a long time in the body of the organism in which they were once generated. This, no doubt, is because of their albuminous and colloid structure. The resultants of the action of the ferment upon the toxic colloid albumin, however, are crystalline products, soluble in the blood-serum and easily and quickly excreted by the body, and just as easily passed through the dialyzer.

The power of the defensive ferment which is produced in the blood is just as potent in breaking down its particular albumin outside the body, in the test tube, as it is in the body in the circulating blood. This fact is taken advantage of in the Abderhalden reactions for discovering or recognizing the defensive ferment in the human body in health and disease.

The defensive ferment of the female organism, specific for placental albumin, remains in the body for a few weeks only, three to six weeks in most women.

Passive Transmission

Another remarkable phenomenon has lately been demonstrated by the method of Abderhalden. It has been quite conclusively shown that the defensive ferment produced in the blood of one animal, and recognized in the blood-serum of that animal by the Abderhalden reaction, may be transferred to the blood of a second animal by the injection of a small portion of the serum of the blood of the animal in which the defensive ferment was first aroused. This ferment remains for a considerable time in the blood of the passive animal that has never suffered any poisoning from the albumin which the ferment is designed to wreck or catabolize.

A portion of the blood of this passive animal may now be injected into a second, a third, or even a fourth animal in series, and the original defensive ferment can be recognized by the Abderhalden method in each of them. It would appear, indeed, that the ferment has the power of reproduction in the blood of the passive animal. These experiments have been performed by Abderhalden and Gigorescu, by Arno E. Lampe, and by A. Fauser,* and there can be no doubt of their reliability and of the significance which these experimenters attach to them.

So suggestive did this phenomenon appear to Fauser, who used the blood of patients suffering from dementia præcox, that he hastened to publish his results without delay. In his experiments, he took the blood-serum from a patient giving a reaction to human testicle, human thyroid gland and human brain cortex, and injected

*Fauser, A., Muenchener Medizinische Wochenschrift, July 21, 1914, vol. 61, p. 16.

this serum into a rabbit. In a few days, he removed some of the blood of the rabbit and found that it contained defensive ferments against human testicle, human thyroid gland, and human brain cortex, and no other ferments that he could discover by using fundaments taken from the rabbit's body.

The Great Psychiatric "?"

There is every evidence of the toxic origin of dementia præcox. This belief (for it can hardly be called a theory, since it is not made the basis of research) has been held by many psychiatrists and doubtless is the unexpressed opinion of Kraepelin himself, who originated the name.

It has occurred to me, as it doubtless has occurred to many others, that recovery from dementia præcox depends upon the production in the patient's blood of a defensive action against the toxic element of the primary disease. This defensive action is manifest in many ways. In other conditions, we know that such an action is going on by the presence of agglutinins that act upon the organism of the primary intoxication. This obviously is impossible to demonstrate in dementia præcox, since we have no knowledge of the organism—if organism it be—that initiates the disease. In other instances, they are recognized by precipitins, but here again we are unable to use a method that has proved valuable in many conditions.

It is my firm conviction that dementia præcox is attended by evidences of a pluriglandular dysfunction not unlike the pluriglandular dysfunctions of pyorrhea alveolaris, streptococcus tonsillitis, cholecystitis, and various forms of colitis. It is my belief that the clinical manifestations of this disease point indubitably to a toxemia from a toxic albumin of a parasitic, a metabolic or of some other unknown origin. It is not unlike the toxemia of general paresis, the primary source of which we have at last discovered in the toxic albumin produced in the tissues of the body by the syphilitic spirochete. I further believe that just as promptly after the discovery of the cause of dementia præcox, as we have observed after the determination of the cause of general paresis, we shall discover a rational method of treatment.

The toxic albumin, dead or alive, which initiates the toxemia of dementia præcox and is followed by the well-observed train of pluriglandular dysfunction is the great psychiatric x of the present day. The search for the defensive ferment against this x is an object worthy the effort of an army of research-men. It is my belief that this defensive ferment is responsible for the waking up and temporary improvement of many cases of dementia præcox and for the permanent recovery of a few.

It is more than likely that the reason why so small a number of patients recover permanently depends upon the rapid disappearance of the defensive ferments from their bodies. When it is gone, the patient relapses and again becomes clouded in intellect and shut-in in emotions by the toxemia or drunkenness produced by the dissease.

A Plea for Research Along Therapeutic Lines

I have tried, up to the present time, to arouse an interest in research into the cause, the cure, and the prevention of dementia præcox. I have never looked upon myself as in a position to say exactly what researches should be made. The motive for research has been strong within me, and when I have been bantered on the generality of my criticism of psychiatric inactivity and my demands for research, I have insisted that it was impossible to prescribe for such an adventure into the unknown, as research always is, and as it certainly must be in trying to discover the cause, method of cure and prevention of dementia præcox.

Now, however, I have something actually specific to propose.

Let us take a case of recovered dementia præcox, or one of those cases which exhibits a temporary improvement lasting a few weeks or a few months. We have repeatedly made the Abderhalden reaction upon this patient and found the serum of his blood to contain ferments capable of wrecking the albumin of the testicle, the albumin of the thyroid gland, and the albumin of the cerebral cortex. I believe that his recovery is brought about by the presence of another ferment, one capable of wrecking the toxic albumin of the primary disease—that is the albumin x.

Now, if I am right in presuming that improvement or recovery was due to this ferment, and that failure of other patients to improve and their failure to recover are chargeable to the inadequacy of this ferment, then we might separate these ferments from the other constituents of the

patient's blood and multiply them greatly in quantity and potency in the same manner as we multiply the antitoxins of diphtheria in the blood of the horse—we might, in other words, repeatedly inject a horse with the blood of our recovered or our improved patient, and thus secure a high degree of immunity in this animal. In other words, we might produce a large quantity and a high grade of defensive ferment in the blood of this animal, by properly injecting it with the blood-serum of our recovered or our improved patient.

Next Step—Find All the Ferments

The next step in the research would be, to determine that all those ferments which we had recognized in the blood of our improved patient were now to be found in the blood of our passive animal. If they were there, as we have a right to expect, we could then assume that all other ferments were there also that were originally in the blood-serum of our recovered patient, especially the ferment against the toxic albumin x, which ferment I assume is responsible for the improvement or the recovery of our patient.

From this time on, our animal will furnish us blood from which to extract serum containing the defensive ferments against the toxic albumin x, to be used upon such patients who fail to improve and show the same pluriglandular dysfunctions or any other symptoms which can be relied upon to put them in the same category as our recovered or improved patient with whose blood we began our research.

It will be observed in Kraepelin's recent writings that he holds to the old group of dementia præcox; but he divides this group into a number of smaller and more or less homogeneous subgroups. It seems to me more than likely that the study of the physical conditions of dementia-præcox patients will render necessary various sources of defensive ferments for the treatment of patients in these various groups.

From Whom to Expect This Research

There are three distinct sources, or three distinct institutions, from which the patients, the profession, and the friends of the insane have a right to expect this and similar better-planned and more promising researches. Obviously, the all-powerful boards of administration, each of whose members receive a salary from the treasury of their respective states almost equal to that of the governors of those states themselves, ought to be alert to set on foot adequate research into the possibilities of the cure of their 190,000 wards.

In the state of Illinois, for example, the Board of Administration that has the care of nearly 14,000 insane persons, upon whose custody it expends nearly $4,500,000 a year, is distinctly and especially commanded by the Code of Charities, which authorizes the payment of their salaries, to support such research. Yet the Psychopathic Institute at Kankakee has never been an institute of research and has never been adequately supported by the Board of Administration. The same conditions prevail in all other states, and it is absolutely disheartening to a person with any motive for research to visit the psychopathic institutes in New York, Michigan, and Illinois.

My experience leads me to think that there is little hope from the allpowerful boards of control, who seem to be more interested in building castellated prisons, which they term "hospitals," than they are in the modest industry and enthusiasm of research-men seeking a condition which will make the castellated prisons unnecessary.

The enormous growth of wealth in the United States has resulted in the establishment of memorial institutes of one sort and another in all parts of the country. Some of these are wholly private, and some of them are more or less public, being connected with large educational foundations. The Rockefeller Institute at New York, Clark University at Worcester, Massachusetts, and the Phipps Institute at Johns Hopkins are examples of the foundations from which we might, possibly, expect research for the cure of dementia præcox. Up to the present time, none of these institutes have made any adequate mechanistic research into this darkest continent of our pathologic ignorance.

While any citizen may reasonably demand of the officers of their state a research into a possibility of saving the state such enormous expenditures as are annually made for the custody of the insane, such a private citizen has no claim upon the service of such private endowments as we have mentioned; and, unfortunately, these private endowments are managed by trustees who seem to feel in no way responsible for the public expenditures for custody, or for social loss from disease for which that custody is necessary.

There is another class, or group, well prepared to undertake such research. They might perhaps be influenced to undertake it if they could see a sure road to realize on its successful issue. The pharmaceutical houses of the United States derive no inconsiderable profit from the manufacture and sale of immunizing and curative serums. They see that the use of drugs is rapidly diminishing, and that the use of serums is rapidly increasing.

At least one out of every thousand youths of high-school age succumbs to dementia præcox. The early cure and prevention of this condition would open a market for an enormous quantity of a successful serum. It is possible that some enlightened commercial house, which now maintains laboratories for the production of diphtheritic, tetanus, and other serums, will undertake as a pure business proposition such researches as may put in their hands a profitable monopoly.

The friends of the insane could do service to research by calling upon the various members of the board of control in the states in which they reside, urging by every argument and insisting by every political influence that these and similar rational researches be undertaken.

Many of the friends of the insane are now supporting, at an expense of $50.00 to $100.00 a week, their demented sons or daughters, their uncontrollable brothers or sisters in private institutions that are places of confinement and custody only, and in no way except appearance better than the state institutions, where similar care can be secured at $1.50 a week. It would be wiser, better, and more humane to remove these patients from their gorgeous surroundings, place them in the perfectly satisfactory state institutions and devote the money saved thereby to the encouragement of the research which may result in finding a cure at last.

The Letters of Doctor Leonidas Playfair

Addressed to a Young Physician Just Entering Practice

By A. H. P. Leuf, M. D., Philadelphia, Pennsylvania

EDITORIAL NOTE.—The difficulties of the young doctor! How many there are and how mountain-like they seem to the youngster; and how small and inconsequential they appear to us older fellows compared with the burdens we are bearing. However, let us give the boy a lift, in other words—advice! Old Doctor Playfair understands the problems and aspirations of youth and can speak for all of us. If you like his letters, tell him so.

Letter Two

MY DEAR FRIEND: Accept my congratulations on having secured a city location to your liking, and my sincerest regret at your attack of sore throat and general "cold." This was no doubt due to your overeating of unusual food at the two banquets you attended, and associated constipation, causing enteric infection. Beware of this in the future, but should it, nevertheless, occur again, I would advise taking a brisk hydrogog purge and abstaining from food for one or two meals, taking, meanwhile, such medicine as will give you easement.

Returning, however, to the subject of further advice concerning practice, it is most desirable to counsel you about your office, than which nothing else is so important except unfailing, faithful attendance during your regular hours.

It is well to have the office properly equipped for the best kind of work as soon as affordable. Houses are not ordinarily, built to facilitate a doctor's work, so that the proper office arrangement requires the rebuilding of an old house or the erection of a new one. It is advisable to have the office part as nearly absolutely separate and distinct from the dwelling portion as this can be made; on which account a corner-house is preferable, because permitting an office entrance on one side and a private one on the other. A grocer, a butcher, a baker or any other tradesman would not expect to do much business if he sold his wares in the parlor of a dwelling-house, and exhibited them through an ordinary pair of windows. Such a merchant provides a special space for the exhibition and sale of his goods. There are people who do run a little grocery business in the front rooms of their houses or in their cellars, but, doing so, stamps them for what they are.

It is substantially the same with the doctor. Men doing a good practice—leaders, I should say, in medical work—have special facilities for seeing and treating their patients. These equipments stamp them as prosperous. The doctor who uses for medical purposes one or two ordinary rooms in his private dwelling must expect to be classed with the cellar-grocers. He should get away from this wrong method as soon as he can. It is more important to do so, in my judgment, than it is to get a horse and carriage.

The Equipment

I would like to make a few suggestions that seem to me to be important in regard to your office and waiting-room equipment. Avoid the exhibition of specimens, bones, skeletons, bottled tapeworms, and various portions of the body. These things make an impression, and almost invariably an undesirable one. People not impressed by these things are indifferent or amused. Those who are impressed are liable to be shocked, and frequently prefer to visit some other less morbid or foolish physician. The question often arises in the patient's mind as to the original ownership of the specimens or skeleton displayed—whether their former owners were not once patients of yours, whether that is your usual way of handling defunct patients, and whether the onlookers themselves may not some day have a portion of their own anatomy on exhibition in your office.

It is perfectly proper, in fact very desirable, to have your office and waiting-room walls hung with pictures. But these should be of such a nature as to be pleasing to all manner of people, and objectionable to none. The more your rooms can be made to have a purely medical air, without the appearance of bombast, brag or quackery, the better. These pictures should be good as well as uncommon. Avoid illustrations of operations or of anatomic lectures or dissections, for they are grewsome and offensive to many people. Eschew religious pictures; for most of them are sectarian, and what would please some of your patients might offend others. Be neutral in all such matters.

There are some very suggestive illustrations of different phases of medical practice that would offend no one, while likely to interest all. Then there are pictures representing the great masters of medicine of the past, in whom a good many individuals are interested, to which a card could be attached with a brief outline biography, preferably typewritten. Death-masks should be avoided as gruesome. Statuary, on the contrary, is not objectionable, provided it is chaste, such, for instance, as the unique groups by Rodgers.

Simply because a picture or a statue is classic, does not justify its presence in your waiting-room or office; that is to say, in the minds of many, if not most, of your patients, whose classical education, at least in matters artistic, is much inferior to their moral sentiment. You can indulge your tastes for the esthetic in your private rooms without risking giving offense to the countless peculiarities of diverse patients.

Exhibiting Instruments and Books

There is a difference of opinion as to whether it is well to exhibit instruments. I think it is eminently proper and desirable that you should do so. This is best done by placing them in the modern instrument cases, composed of a white enameled frame work, paneled and shelved with glass. Instruments so exhibited are noticeable only *en masse* by their reflected glitter, and announce to the patient that you are a surgeon as well as a physician. It is also an advantage to have them under constant view to guard against their deterioration.

It is perfectly proper to have in plain view the drugs that you dispense. These should be arranged in some uniform manner, say in bottles that are all alike in style and similarly labeled. It shows that you are equipped for the dispensing of your own drugs, and inspires the patient with the added confidence that you control your supply of remedies, and, thus, know what your patient gets.

A collection of books is one of the most desirable equipments for a doctor's office, and it seems needless to add that these should be mainly upon medical subjects. They should be books worth having, and as such they merit the best of housing; by which I mean that with them should go first-class bookcases, preferably of the sectional variety with glass lids. With such cases it is possible to start with one small one, gradually adding to it as the books accumulate; while the cases can be rearranged from time to time in different ways, securing artistic effects. When a sufficiently large enough number has been acquired, the books then may be grouped according to size, each

sectional case lettered, and the books within designated by the section letter and a number. They then should be indexed on cards so that they can be located readily.

Finally, I want to say that it pays to furnish an office and waiting-room as nicely, as elegantly, and as comfortably as your means will permit. They should be kept clean, should be tastily arranged, and contain some potted plants if there is room for them, particularly in winter. Plants are desirable, not alone because of their appearance, but because they absorb the carbonic-acid gas exhaled in the room, and because they throw off oxygen to serve you in breathing.

The Office-Attendant and the Wife

Aim, at the earliest possible moment, to have your door regularly attended by someone specially paid for this purpose. Practice looks too much like a family affair to have any member of the family come in contact with patients in this way. This is particularly true of the doctor's wife, whom many people credit with knowing all about his patients. Her presence in the waiting-room, and her letting patients in or out of the house, give additional probability to this belief in the minds of many people. She should keep aloof from the patients and never hob-nob with them, although always observing a pleasing and friendly manner that insures a reciprocal sympathy and good will.

A well-equipped office should have facilities for washing and for attending to calls of nature, preferably without necessitating the passage of patients through the private part of your house while going there. Still, it is well not to have it too generally known that you have such conveniences, lest they be unnecessarily taken advantage of by selfish individuals who care not how much they may consume your time or add to the labor of those who work for you.

The Doctor's Sign

Recollect that the doctor's sign serves for identification only, and is not intended as an advertisement. There is some difference of opinion as to whether your name should be preceded by the word "Doctor," or its abbreviation, "Dr.," or be followed by the conventional "M. D." instead. I should say that, inasmuch as "M. D." is more explicit, showing of what you are a doctor, it is the ideal way. On the other hand, "Doctor" is most intelligible to the ignorant, its abbreviation, "Dr.," not as much so. As a matter of business, therefore, it is important to precede the name by the word "Doctor" in proportion to the ignorance of the community in which you are located, while you can most safely enjoy the privilege of being more exact in the use of "M. D." after your name, when located among the well educated.

As to whether you should use your given name or initials on your sign, also depends upon similar circumstances. It is true that a name as common as Smith makes the use of given names or initials necessary, while not required with unusual names. These are small things; nevertheless they count, and it is well to be governed by them when there is no important consideration except money.

Other signs worthy of a conspicuous place in your office may read as follows:

"No office-hours on Sundays or Holidays."

"Office Consultation strictly cash."

"Office Consultations from $1.00 to $10.00."

"Special services entail a corresponding charge."

"Outside calls made after evening hours or before morning hours are liable to double charge—Night Calls always."

"Special office appointments must be paid for if not kept, unless canceled by consent."

While there is objection to having your office-hours displayed upon the outside, it is very advantageous to have them posted in your waiting-room and office, particularly the former. Many patients are apt to forget your office-hours, though you have them designated on your cards, prescription-blanks, labels, and medicine-envelopes. They are unnoticed by most patients. A sign in your waiting-room compels attention, because those waiting for you are in enforced idleness, and look about them in the attempt to pass away the time.

Never make the mistake of having a branch office. It is a waste of time and makes a bad impression upon patients. They are never sure as to where they can find you. People who think will realize that you are not as busy in the practice of your profession as you are in trying to get work. Your expenses are increased, and your efforts dispersed instead of being concentrated. It is far better to have a single office as well equipped as your means will allow, in which may be concentrated your own efforts and the thoughts of your patients.

In my next letter, I shall be pleased to take up the matter of office hours; so make no arrangements about them until I write to you again, but meanwhile keep yourself within ready call of possible patients chancing your way, so long as you are not engaged in making professional visits elsewhere—as I hope.

Your true friend,

LEONIDAS PLAYFAIR.

Diseases of the Alimentary Canal

By A. L. BENEDICT, A. M., M. D., Buffalo, New York
Editor of "The Buffalo Medical Journal"

EDITORIAL NOTE.—This is the second paper in Doctor Benedict's series on diseases of the alimentary canal. Every physician who has been disappointed with his method of treating "indigestion" or "dyspepsia"—and who has not—should study these papers faithfully. There are more of them to come.

FROM the purely "functional standpoint": This expression is used here rather than "functional diseases," for the reason that in many instances the strictly functional nature of disease is questionable, while in gastric disorders generally a condition that logically may be considered functional tends to follow or rapidly to develop an organic lesion. However, even when an organic disease is present, it is well to consider the functional state of the stomach without prejudice, since the immediate therapeutics of a case depends largely upon the immediate condition.

Theoretically, one can make an elaborate tabular view of functional gastric disturbances, according as each secretion, the muscular function, and the sensibility is increased or diminished, or in entire abeyance, or otherwise perverted. The possible combinations would make a formidable array. Practically, this scheme can be somewhat simplified, but, on the other hand, it does not conform to a classification so beautifully regular.

Gastric Sensation

The normal sensibility of the stomach is slight: warmth, chill—either following thermic stimuli or as subjective sensations—"burning," in more than the literal thermic sense, up to pain; a sense of emptiness or of distension, hunger, thirst, cravings for special foods or beverages or for nonnutritive substances, are about all that can be felt. The last three sensations are rather dubiously due to the stomach itself, but seem to depend in an unexplainable way upon metabolic conditions generally.

The term abnormal, as applied to any disturbance of sensation, must be analyzed, so as to determine whether the sensation itself is abnormal from the functional standpoint, or whether it is perfectly logical and, therefore, normal, but in response to an abnormal stimulus from without or from some intrinsic abnormality of other nature. For instance, gastric functional disturbances would ordinarily be classified as "excessive," as the technical equivalent of a sense of burning or pain. But, if a healthy person accidentally swallows a strong acid, pain is the natural result. Barring necrosis or the concomitant analgesic action of, for instance, phenol, it would be an abnormality if, under the circumstances, pain were not felt. So, too, if there is an excess of secretion of hydrochloric acid by the stomach itself, or if there is an ulcer of the stomach, then the fact that pain is felt is absolutely normal from the functional standpoint.

There is a temptation to say that the normal sensibility of the stomach is so slight that it can not be depressed further. This is not quite accurate, for there are persons who have no appetite, either as a direct result of gastric or general diseases or as a chronic condition, and who are insensible to differences in temperature of food and liquids introduced. Hunger seems to depend almost entirely upon the relative absence of or distension of the gastric rugæ, and to have little connection with the nutritive qualties of the contents or the general nutrition of the body. In fact, it is (naturally enough, if we consider the real relation of causes) more marked in excessively well-nourished persons than the reverse; it is not a durable reflex from gastric contraction, since it disappears early in starvation.

Conversely, the dependence of hunger and appetite, as well as the opposite condition of satiety, upon the state of the gas-

tric rugæ is pretty definite. A small stomach is more quickly satisfied than a large one, and the boulimia of gastric dilatation really is in accordance with a general law, that satiety occurs when the rugæ are moderately distended, rather than a strict functional abnormality. So, too, the prompt reapparance of hunger may occur in persons with relaxed cardia; which is likely to accompany deficient secretion of hydrochloric acid, and indicates simply that the stomach empties itself quickly.

Why People Eat Too Much

On the other hand, the moderate irritation of the gastric wall by excessive or obstructed acid secretion, occasionally that of an ulcer, may cause undue appetite. As is well known, boulimia tends to occur in persons having too little to occupy their minds and in certain mental states. The boulimia of old persons may be explained on either of these bases. Boulimia may be part of the delusion of grandeur in paretics and, somewhat analogously, when there is no question of paresis, an otherwise normal individual may take pride in the amount that he can eat or drink. Young adults also often overeat because of the mistaken idea that they can accumulate reserve of strength, as one could lay up money in a bank.

Boulimia is mainly to be controlled by discipline and by attending to gastric dilatation and other organic states causing it. Appetite may be stimulated also by attention to the local gastric and the general health. So far as drugs are concerned, hot dilute alcoholics, strychnine, quassine, or any simple or aromatic bitter may be employed. None of these is absolutely dependable. If lack of appetite is psychic, it requires the corresponding treatment. Any pleasurable excitement or break of monotony, company to dinner, change of scene, for many women any kind of meal, however poor, that they have not had to cook or even plan themselves. Chronic anorexia may be part of a general asceticism and habit of inhibition.

It should be remembered that "pain in the stomach" does not necessarily apply to the stomach in the anatomic sense, but may mean gall-stones or the most varied kind of referred or indefinitely located pain. Even if gastric, it may have nothing to do with the gastric function, but may be neuralgic, neuritic, rheumatic, syphilitic, tabetic, etc.

The normal gastric peristalsis recurs at approximately 7-seconds' intervals, but the rhythm is not so regular as for respiration and pulse. With the intermittent relaxation of the pylorus, about half of a light, partly liquid meal is expelled within an hour, and the stomach should be empty in from two to six hours, according to the amount, consistence, and variety of the food. A very lenient, approved test is, to wash the stomach in the morning after a hearty dinner, when it should be entirely empty. In the writer's experience, a delay of food—barring perhaps some tenacious residue, such as oatmeal scales—beyond twenty-four hours, always has been associated with cancer, although nonmalignant cases of such delay have been reported.

Cannon has proved physiologically that the relaxation of the cardia is due to the stimulus of hydrochloric acid. In the clinical sense, exactly the opposite is the case; that is to say, food slips rapidly through a stomach that secretes none or but very little hydrochloric acid, and is delayed in hyperchlorhydria, allowing, of course, for actual muscular weakness, ptosis, pyloric obstruction and the like.

It should be distinctly understood that the emptying of the stomach does not depend entirely upon muscular power. A relatively atonic stomach, with no appreciable hydrochloric acid to cause the pylorus to contract—remembering the difference noted between physiologic and clinical experience—and not so dilated or ptosic as to make the emptying of the stomach literally uphill work, usually empties itself quite rapidly. With excess of acid secretion or fermentation acidity to stimulate pyloric closure, or with any condition of the pylorus, such as, for example, a typic ulcer, fissure, localized inflammation, rendering it more responsive to such stimuli or, *a fortiori,* with an organic obstacle at the pylorus, there may be an actual excess of motor function, with a deficiency of motor result. With a continuance of these conditions, however, the gastric muscle tends to become weak and finally atrophic, with dilatation, very much after the analogy of the heart.

Auscultation of the stomach is a neglected art, though one of great value in determining the actual motility, as distinguished from its result—emptying-power. Some practice is necessary, but one can finally distinguish all sorts of disturbances

of rhythm, irregularity of wave, and inconsistencies between muscular energy exerted and efficiency.

Treatment of Gastric Motor Defects

For deficiency of muscular action, there is virtually one drug to be used, namely, strychnine, which is more definite than galenicals, better even than brucine, and more efficient than bitters. But, it should be borne in mind that strychnine does not directly increase a function; it simply renders the muscle or gland more susceptible to accidental excitoreflexes. Likewise, it should be remembered that the action is on the muscular power, not on the ultimate result. Here is an illustration of the need of auscultatory or x-ray investigation, rather than of dependence on the test as to emptying-time.

Granted that we find a stagnation of stomach contents, but with stormy, inefficient peristalsis, the indication is, to reduce hydrochloric acid if in excess, to lubricate with pure white mineral oil, and to administer bland, pultaceous food, rich in fats and without large solid masses, if the pylorus is obstructed or is spastic. It has even occurred to the writer that digitalin, strophanthin, or the like, may be indicated. to secure a strong, slow, steady contraction, in the event of moderate obstacle of either functional or organic nature at the pylorus, just as in similar cardiac problems. It is, however, difficult to check the result of such therapy clinically, and there often are contraindications in the heart itself.

To control stormy peristalsis—supermotility—we must, of course, relieve hyperchlorhydria, fermentation, etc., remove irritating factors from the diet, sometimes aid digestion in a direct sense; but there remains an indication for more direct treatment.

Lavage comes into play here, employing lukewarm, slightly alkaline solutions. Conversely, if motility is weak, alternations of hot and cold lavage are indicated. It is important to guard against introducing any great weight of water into the stomach at once, making the limit at most 500 Cc. Even if the endeavor is, to calm a supermotile stomach, it is dangerous merely to fill it up and then empty it. A needle-douche may be used inside the stomach, but it is doubtful whether it has any special advantage, inasmuch as the needle action is limited to the first spurts of water.

To stimulate a weak stomach, a spray of menthol in pure mineral oil may be employed, using a pump of known capacity, so that too great inflation may be avoided. Alternate inflation and deflation, up to a volume of 1000 Cc. at one time, exercises the gastric muscle. It is scarcely necessary to state that various local anodynes, beside alkalis, may lessen the excitoreflexes upon which stormy peristalsis depends. As for any direct sedation of this sort acting on the muscle, we are limited to the mydriatic group of remedies, and, for obvious practical reasons, mainly to cannabis indica; for which, again, we are limited to really efficient, standardized preparations, many preparations being practically inert.

The proper performance of the motor function of the stomach depends upon the joint action of the muscular coat and of the cardiac and pyloric sphincters. Moreover, this implies a tonic action of the sphincters, with due relaxation at intervals, and a clonic action of the general musculature. The latter also consists of coats approximately corresponding to the longitudinal and circular coats of the intestine, but with well-marked oblique strands in addition. There is, therefore, a very complicated muscular action, involving mutual contraction and relaxation, required for the proper performance of function.

Even with the x-rays and the most elaborate tests of "emptying," it is impossible clinically to reduce physiologic principles to a practical basis for diagnosis and treatment. In particular, there is not a uniform tendency of all muscular parts toward a state of deficiency or excess of contractility. Except during ingestion and for the occasional relief of gaseous distension or voiding of irritating contents, the cardia should be in a state of permanent closure.

Belching and "Puking"

It should be remembered that belching of gas and vomiting, not to mention puking in infants, while not strictly normal phenomena, frequently are conservative factors. Gastroenteric conditions in horses, who rarely vomit, are notoriously serious on this account, and it may be stated that the more serious gastric conditions short of cancer occur by preference in human beings who do not vomit readily.

It can readily be understood that there is not a uniform indication to depress or in-

crease the muscular power of all parts of the stomach; also that there are many conditions in which the administration of strychnine, cannabis indica or any other method of treatment acting in one direction may be limited by contraindications, and that the proper balancing of opposite indications many times is a very difficult matter or impossible.

For example, consider a case af spasm of the pylorus, without proof of ulcer or indication of hyperchlorhydria, with stormy and irregular peristalsis, but with relaxation of the cardia, so that there is constant belching, waterbrash, and often occasional vomiting.

How can we sedate the two former conditions and stimulate the latter? The writer does not know, except that the cleansing of the whole organ by means of lavage allows the factor of rest to operate, and that local massage of the cardia by passage of a bougie is possible, though not always accepted by the patient, and that it is relatively efficient. There seems to be no superiority over the bougie, connected with elaborate devices of beads of different sizes, or with inflatable balloons, the exact position of which can scarcely be directed from above.

How strong and continuous should the contraction of the cardia be, anyhow? We can not go so far as to say that it should be relaxed only by masses from above, in swallowing, for its occasional relaxation for belching of gas and vomiting is an essential conservative factor. Many persons cannot eat a hearty meal and then stoop over, as to put on shoes, without belching and regurgitation of small quantities of ingesta. So far as the writer knows, this phenomenon is not amenable to treatment. Is it strictly pathologic? There is no universal physiologic standard.

Somewhat similar difficulties apply to the pylorus. Given, for instance, a normal state of general muscular action of the gastric wall, with relaxation or spasm of the pylorus, or a condition of the former opposite to that of the latter, what shall we do? Except for the somewhat indirect methods already alluded to, such a problem is extremely puzzling. The writer has had no experience with mechanic devices for dilating the pylorus without operative exposure.

The Gastric Secretion

Aside from a practically inert mucus, the secretions of the stomach are two: hydrochloric acid and pepsinogen; the latter converted into pepsin by the former. It has been alternately claimed and denied that rennin is a distinct ferment. All things considered, it is better, at least from the practical clinical standpoint, to hold that milk coagulation is an accidental function of pepsin. In the vast majority of cases, both milk coagulation (after neutralization of the acid or the use of too small a quantity of gastric filtrate to involve the action of acid) and proteid digestion are found present in stomach contents. In the majority of the comparatively few cases in which either reaction is negative, the other is also. As various manipulations of commercial milk render it noncoagulable, and, also, since various blunders and interfering factors may vitiate the reliability of clinical tests either of peptonization or coagulation, it seems warrantable to ignore the occasional reports of discrepancies between the two tests.

Ptyalin digestion of cooked starch also continues in the stomach until a considerable degree of acidity is present. The impression is given by most textbooks that this action is inhibited by the normal full hydrochloric acidity and, *a fortiori,* by hyperchlorhydria.

In the writer's experience, sugar is always present in stomach contents in appreciable amount, providing the test meal contains cooked starch and unless the contents are aspirated very late.

(To be continued.)

Refraction for the General Practitioner

By Thomas G. Atkinson, M. D., L. R. C. P. (Lond.), Chicago, Illinois
Author of "Essentials of Refraction"

EDITORIAL NOTE.—Are you following this series of papers upon refraction? If not, you are missing a good thing. Refraction work is easy to learn, is pleasant, profitable, and gives opportunities for expansion for many ambitious men. Look up the back numbers in Doctor Atkinson's serial. Buy a copy of his book. Write him for details if you do not understand him fully.

Fitting the Glasses

AFTER the refraction of the eye has been measured and corrected and the necessary lenses prescribed, there still remains the very important task of properly fitting the glasses to the patient's eyes and face, either by oneself adjusting the frames or mountings or by carefully prescribing every detail for the optician's guidance. The latter nowadays is the more common procedure. The prescription-blanks furnished by the optical houses contain tabulated forms for the proper measurements of the frames and mountings, and such other instructions as pertain to the mechanical phase of the matter. The refractionist makes the various measurements and fills in the forms; these being fully and carefully followed by the optician in making the spectacles.

The proper fitting of the glasses is based upon a few definite optical principles, the first, and probably the most important, of which pertains to the relation between the visual axes of the eyes and the optical centers of the lenses, and may be stated as follows:

The visual axis of the eye should cut the mean plane of the lens perpendicularly at its optical center.

In order that the visual axis may cut the lens perpendicularly, the plane of the lens must stand at right angles to the visual axis; and, in order that it may cut it at the optical center, this optical center must coincide with the visual axis.

It is plainly evident that a lens will exert its proper dioptric strength only when its plane is perpendicular to the visual axis; for, all lenses really are a series of prisms, set base to base (convex) or apex to apex (concave), and, if the visual axis passes through them obliquely, the prismatic effect is increased, either toward or away from the base, and the convexity or the concavity of the lens is increased toward the eye. A glance at the accompanying illustrations will make this clear.

Cylinders may be regarded as a simple pair of prisms, set base to base or apex to apex. Hence, if the visual axis cuts a cylindrical lens obliquely, it simply acts as a stronger cylinder. Spheres, on the other hand, are, in effect, concentric series of triangular prisms, whose bases or apices (as the case may be) converge toward the optical center; consequently, if the visual axis cuts a spherical lens obliquely, it not only acts as a stronger sphere, but takes on the nature and effect of an added cylinder having its axis at right angles to the axis about which the lens is rotated.

It is obviously impossible to attain a condition of ideal perpendicularity; for, the lens can be placed only so as to be perpendicular to the visual axis when the eye is in one particular position, and any deviation from that position by rotating the eye will disturb the perpendicular relation. For example, if the glasses are so adjusted that the visual axes of the eyes at rest (parallel) cut the lenses perpendicularly, then the moment the eyes are converged the visual axes will cut the plane obliquely; and vice versa.

With ordinary lenses, the best that can be done is, to adjust the glasses so that the plane of the lenses will stand perpendicular to the visual axes in the position of most frequent use; if for distant vision, in the vertical plane, if for near vision, inclined a little downward and inward, so as to front the converged visual axes. In adjusting bifocals, the planes of the lenses should be set between the near and the distant axes, a trifle in favor of the near axes.

Nowadays, however, this matter of perpendicularity is very effectively met by the use of what are known as periscopic lenses —concavoconvex lenses, made so that their inner curvature conforms as nearly as practicable to the sphere of rotation of the eyeball. In this way, the visual axis cuts the lens perpendicularly whichever way the eye may be turned, or so nearly perpendicularly as virtually to do away with

prismatic effect in all but the very high degrees of dioptrism. All patients should be encouraged to take periscopic lenses, as they amply justify the slight additional cost. Even cylindrical lenses are now made in this periscopic form.

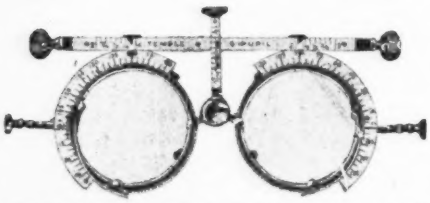
When for any reason the patient declines a periscopic lens, we often may approximate a periscopic effect in compound cylindrical and spherical lenses (in which the prismatic effect of obliquity is most noticeable), by arranging the combination so as to get a minus cylinder on the inside of the lens and a plus sphere on the outside. If the correction is a minus cylinder on a plus sphere, there is nothing to arrange, of course. But, if it be a plus cylinder on a plus sphere, then we can arrange it by what is known as transposition. We change the cylinder to a minus, also changing the axis to right angles, then add together the two quantities to make the new sphere. Thus:

+ 6 cyl. ax 90 with + 8 sphere,
Trans. − 6 cyl. ax 180 with + 14 sphere

With a combination of minus cylinder on minus sphere, such an arrangement, of course, is impossible. Patients requiring this correction must either get toric lenses or stand for the prismatic annoyance.

Pupillary Distance

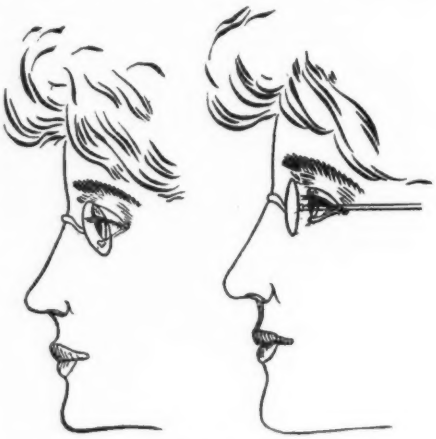
In adjusting glasses so that the optical centers of the lenses shall coincide with the visual axes, the chief factor is the measurement of the pupillary distance (conveniently designated as the P. D.), that is, the distance between the centers of the two pupils. Manifestly, if the optical centers of the lenses be set apart the same distance, and so as to be equidistant from the center of the nose-piece, they will coincide with the visual axes for parallel vision.



Illustrating graduated trial frame, by which pupillary distance, temple measurements, and height of bridge can be estimated.

A rough method of measuring this dimension is, to have the patient look steadily straight ahead while we hold a meter rule horizontally across his face, cutting the two pupils as nearly as possible through their centers, then read the pupillary width on the rule.

A much better method, however, is to use the spectacle frames and P. D. discs which come with the trial cases (illustrated in the accompanying cut). Mounting the frame on the patient's face and adjusting the earbows, we then place in the cells the two plano lenses having a line bisecting them. This line we set vertically in each cell. Now, by turning the knob at either end of the horizontal bar above the frame, we widen or narrow the distance between the two lenses until the vertical lines exactly cut the centers of the two pupils. The index on the observer's right hand of the bar shows the pupillary distance.



Illustrating the perpendicular plane of the lenses for near and distinct vision respectively.

If one wishes to be still more accurate, one can use a Maddox pupil localizer; but I cannot devote the time or space to give a description of them here. They are seldom used in ordinary practice.

Decentering for Prisms

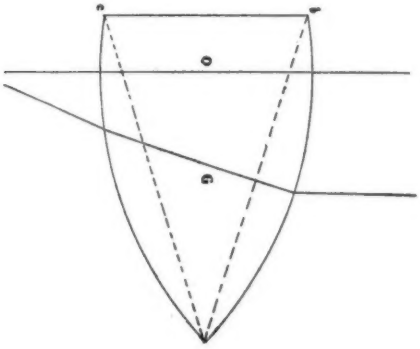
Not infrequently we take advantage of the prismatic effect produced by a disturbance of the relations above explained, to give the patient the benefit of a prism before the eye for the assistance of muscular imbalance. (See previous article.) Thus, we deliberately order the lenses to be adjusted so that the optical centers do not coincide

with the visual axes, for the purpose of getting a prismatic effect. This procedure is known as decentering the lens.

Bearing in mind that plus lenses really constitute a series of prisms set base to base, and minus lenses a series of prisms set apex to apex, you can readily see that by decentering the former in any direction we get the effect of a prism with the base away from the direction in which we decenter; by decentering the latter, we get the effect of a prism with its base toward the direction of decentration. Thus:

Plus lens decentered	outward	prism base	in
" " "	inward	" "	out
Minus lens decentered	outward	prism base	out
" " "	inward	" "	in

The stronger the lens, whether plus or minus (i. e., the stronger the prisms which compose it), the greater will be the prismatic effect of the same degree of decentering. Thus a 2 D. lens only will have to



Illustrating the prismatic effect of decentering. The optical center O has been moved toward the base of the vertical prism B A C.

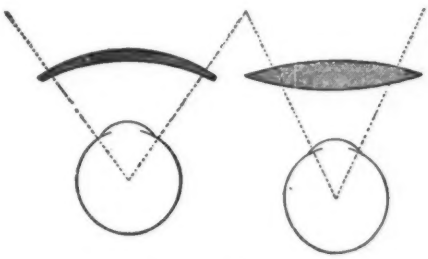
be decentered half the amount that a 1 D. must be decentered to produce the same degree of prismatic effect.

These relations between the dioptric strengths of lenses and the distances they must be decentered to produce given prismatic degrees have all been worked out into a table, which I reproduce here. The strengths of the lenses are, of course, given in diopters; the prismatic effects in prism-angles; the degrees of decentration, in millimeters. Thus, a 1 D. lens must be decentered 9.4 mm. to give 1 degree prism-angle, 18.8 mm. to give 2 degrees prism-angle, and so forth.

TABLE III.*—DECENTERING EQUIVALENT TO A GIVEN REFRACTING ANGLE (INDEX OF REFRACTION, 1.54).

Lens	1°	2°	3°	4°	5°	6°	8°	10°
1 D.	9.4	18.8	28.3	37.7	47.2	56.5	75.8	95.2
2	4.7	9.4	14.1	18.8	23.6	28.2	37.9	47.6
3	3.1	6.3	9.4	12.6	15.7	18.8	25.3	31.7
4	2.3	4.7	7.1	9.4	11.8	14.1	18.9	23.8
5	1.9	3.8	5.7	7.5	9.4	11.3	15.2	19
6	1.6	3.1	4.7	6.3	7.9	9.4	12.6	15.9
7	1.3	2.7	4	5.4	6.7	8.1	10.8	13.5
8	1.2	2.3	3.5	4.7	5.9	7.1	9.5	11.9
9	1	2.1	3.1	4.2	5.2	6.3	8.4	10.5
10	.9	1.9	2.8	3.8	4.7	5.6	7.6	9.5
11	.9	1.7	2.6	3.5	4.3	5.1	6.9	8.7
12	.8	1.6	2.4	3.1	3.9	4.7	6.3	7.9
13	.7	1.4	2.2	2.9	3.6	4.3	5.8	7.3
14	.7	1.3	2	2.7	3.4	4	5.4	6.8
15	.6	1.3	1.9	2.5	3.1	3.8	5.1	6.3
16	.6	1.2	1.8	2.4	3	3.5	4.7	6
17	.6	1.1	1.7	2.2	2.8	3.4	4.5	5.6
18	.5	1	1.6	2.1	2.6	3.1	4.2	5.3
19	.5	1	1.5	2	2.5	3	4	5
20	.5	.9	1.4	1.9	2.4	2.8	3.8	4.8

Next month I shall continue to treat of the mechanical features of fitting the glasses, telling how to adjust the length of the bows, the various features of the



Illustrating the perpendicular axes effect of periscopic lenses.

mountings and bridge, the angle of the crest, and so forth; all of which is a highly important part of the practical application of the principles of refraction.

—

[Great interest has been shown in this series by readers of CLINICAL MEDICINE, and we hope that many of the "family" have been impressed by Doctor Atkinson's plea that *doctors* should take up refraction work and put into their own pockets the many dollars that now go into the hands of jewelers, peddlers, and department-store spectacle-fitters. Refraction work is easily learned, it is profitable, and it is a natural part of the physician's work. If you are interested and wish to pursue the matter further, may we suggest that you write directly to Doctor Atkinson, who has a plan for your help. In the Miscellaneous Department, this issue, he has an announcement that should interest you.—ED.]

*Jackson: "Transactions of the American Ophthalmological Society." 1889.

Has Medicine No Curative Properties?

A Plea for Drug Studies

By John M. Shaller, M. D., Cincinnati, Ohio
Author of "A Guide to Dosimetric Medication"

PHYSICIANS sometimes are heard to say that "medicine has no curative properties." Perhaps this is done in imitation of a certain truly great clinician who has been accused of having originated this bold assumption or oracular wisdom. Now, if that phrase does mean anything, it is, that when medicine is given to the sick it does not effect a cure.

Let us first understand what the word curative really means. It means the power to heal, to make well, to restore to health, permanently to relieve such symptoms as are manifest.

We will consider only chronic diseases. Acute diseases are of short duration; often they are self-limited, and, moreover, about seventy-five percent of the patients so afflicted will get well without taking any medicine. These facts make it difficult to ascertain the true value of medicine in the treatment of individual cases belonging to this class.

That seventy-five percent of the patients who have acute diseases will get well without taking medicine, does not, by any means, establish the positive conclusion that medicine is not needed, or that it has no therapeutic value in the treatment of this class of patients.

Aconitine will very greatly modify fever, and, by increasing the secretions in general it assists elimination, curtails and even aborts disease; all of which reduces suffering and brings ease to these patients; thus improving upon nature.

Calomel and a saline laxative used at the beginning of acute diseases unload the gastro-intestinal tract, increase gastrointestinal secretions, eliminate poisonous products, and thereby greatly improve the conditions of such patients and certainly bring ease and comfort sooner than by waiting for slower nature to do so.

An emetic, when the stomach is overloaded by putrefying contents that have produced symptoms of autoinfection, often gives prompt relief, followed by improvement, especially during or after a prolonged spree.

Do We Cure Chronic Diseases?

With chronic diseases, it is, however, very different. Many of these patients are sick for months. The tendency to spontaneous healing or to run certain specific periods is not so general. If, therefore, a patient with chronic disease is placed under treatment and begins to show signs of improvement, and then gradually gets well, one is justified in believing that the treatment, no matter what it was, effected a cure. Nor can it be said, as in the case of acute diseases, that the disease ran its course and the patient got well in that way.

Chronic patients frequently go the rounds of physicians and try all kinds of treatment, without improving at all. Finally they fall in with some new doctor and after taking his medicines for a while find that they gradually become well. They have been cured.

Why are these patients cured? Because the symptoms of which they were aware, and of which the doctors and others were aware also, have passed away—they disappeared. The patients consider themselves well, and so does the doctor and he discharges them. Previous to this time, however, neither medicines nor nature had been able to give any relief.

All physicians who have had such patients under their care, no matter what their beliefs were in regard to the curative values of drugs, did, without hesitation, make the claim of having cured them, and also took pay for having cured them. Not one of them said: "I did not cure you, keep your money, you cured yourself; you would have gotten well just as readily if you had never seen me." And the physician is right in making the claim of cure. Why did the patient get well? Because he took this doctor's medicine and advice. This patient began to feel better soon after taking this particular physician's treatment.

There is nothing strange or startling or even incredible about such results after taking medicine. The most startling thing about it is, that at this present-day proof should be needed to show that medicines do cure, and cure because of some special inherent property within themselves. For thousands of years people have observed that appropriate medicine makes them well—not all the time, yet, a sufficient number of times

—just as it does today, to warrant the belief in the medicinal virtues of drugs.

Why Do We Encourage Skepticism?

The most amazing inconsistency on the part of physicians is, that they themselves should raise doubts in the minds of their patients and of the public in general as to the power of medicines to cure. This encouragement of skepticism comes from the fact that certain diseases are not often cured by medicines. Some forms of heart disease, and of kidney affections, mental and socalled nervous conditions, cancer, and tuberculosis may, in general, reasonably be ranked as incurable.

And, yet, there is no doubt that tuberculosis and other ailments classed as incurable occasionally are cured. This fact may be verified, notwithstanding that the medical authorities are reluctant to admit it. This is particularly so with regard to cancer. The incurability of this disease has been so firmly rooted, through long traditional teaching, that it is almost impossible to believe that one single case has ever been cured by medicine. Occasionally there are some brave doctors who cite their cures, with authentic corroborative evidence that can not be successfully contradicted. Even though the percentage of cures may be very small, the fact remains that some patients really are cured. This is not because a specific medicine is given, but, because medicines are well selected to meet specific, individual indications prominent in each patient.

The unfortunate method of prescribing medicine simply because some disease exists, such as rheumatism, is not fair for the patient. There is no one medicine which when given to all patients suffering from acute articular rheumatism in its febrile state will cure all of them. No particular medicine will cure at all times all patients of the same disease, but there are some medicines that will cure some of the patients some of the time. That some medicine will not cure all patients every time, is not so much the fault of medicine as of him who prescribes it. Conditions vary in the same patient during different attacks of the same disease, and these variations necessitate the use of different properly selected and adjusted medicines.

Medicines Do Cure

Salicylic acid will cure the majority of patients suffering from acute articular rheumatism during its febrile period. There are times, however, when colchicum or bryonia will do better. There also are times when neither medicine, nor even nature, can effect a cure.

The chief point to be emphasized is, that medicines can, and do, cure. No matter what Professor Osler says or what other doctors may say about it, medicines do cure because they contain certain inherent curative properties. If I understand the views of those who say medicines do not cure, they mean that nature cures, not the doctor, nor the medicines. On this same principle, foods do not nourish, but it is nature who nourishes. If a man were found at the point of starvation and someone gave him food and thus saved his life, this someone really did not save the man's life; the food did not do it; but it was nature, for nature had to be there to assimilate the food, just as it has to be there to assimilate and appropriate the medicine. You see how plain, how explicit and how very direct this explanation really is.

That surgeons should not be enthusiastic advocates of internal medication would seem quite natural. Their training is such that it leads to the desire for quick results. Expectantly waiting month after month for the slow results of medicine in the treatment of chronic diseases, does not fit into the character of the surgeon, especially not, when one hour's work frequently will remove the cause of disease and produce a cure.

Logically, then, it is the surgeon who might very consistently underestimate the therapeutic values of medicine. He might even affirm that medicines have no curative properties, at least, for him.

Surgical intervention is not always followed by cure, any more than is medication. Surgery often fails even to alleviate, and sometimes it no doubt hastens death, if it does not actually precipitate it. This may, however, be very desirable so far as the patient is concerned, because of severe suffering for which no relief can be promised.

Because surgery does not always cure, and because it sometimes even fails to alleviate or even may be the direct cause of death, some practitioners who confine themselves exclusively to the use of internal medicine aggressively oppose all kind of surgical work. This is absolutely wrong. To condemn surgery because it does not bring relief to all who are operated upon, is just as irrational as to condemn all internal medication because medicine does not cure all who take it.

The Cures Effected by Nature

Nature herself is no less at fault, and she is positively and absolutely less successful than either surgery or medicine.

We frequently hear of the wonderful cures effected by nature. We are told to keep our hands off; to support nature; to wait and follow the expectant plan while nature cures and restores the health that was lost.

There are, perhaps, more than one million people sick with chronic diseases in this country alone. Each one of this large number is sick because nature failed to keep him well and then failed to make him well after he became sick. Each one chronically sick is a conspicuous monument, a living witness to the fact that nature did not cure him. There may be a few in this class whom even the doctors failed to cure.

In the present order of things, all men must die, in spite of nature, of the surgeon, of the doctor, and even of the no-drug practitioner, all of whom are trying their best to prevent about eight hundred thousand people dying each year. This very great number, after they are dead, are absolutely of no assistance to doctors.

When so many die each year, when there are over one million chronically sick, to say nothing about the many who are sick because of acute diseases, and when we consider that all who die do not die of old age, it really seems as if medicine were not so very efficient, after all, and, yet, of the million of patients who are now suffering from the effects of chronic diseases, all of them will not die because of their present diseases, for many of them will get well by taking medicine in which there is some inherent curative property.

In chronic diseases, nature often has years of time in which to effect cures—if she can. Sick people are almost as good judges as are physicians in determining whether they are relieved of their symptoms after a course either of nature or of medicine.

When chronic patients wait for nature to cure them, they still have the advantages of change of scene, with its different climate, of diet, baths, mineral waters, physical exercise, and so on, and, yet, these patients only too often die of their prevailing diseases. Many of them die while waiting for nature to cure them. Nature only too often is a laggard, and much procrastination results in so increasing the lesions that skilled physicians are thereafter prevented from rendering efficient service.

Killing Versus Curing

If a man takes an overdose of digitalis and dies, physicians very naturally, and justly, infer that a disastrous effect—death—followed a cause; in this case, digitalis. When a patient who has dropsy from heart disease takes proper doses of digitalis and becomes well, those physicians who believe that medicines have no curative values are not so eager to infer, and perhaps would even deny, that health—an effect—followed a cause—digitalis. This class of physicians would say that nature performed the cure. This mere hairsplitting or haggling over extremely unimportant detail is only begging the question.

Here is a man who has been sick for some months because of heart disease and he has been becoming gradually worse. Finally he is cured because he took digitalis. The question comes up, Why did not nature cure before digitalis was taken? It certainly could not have been for want of time. There is one very good reason why nature did not cure this patient: it did not have digitalis. Without digitalis, neither nature nor the doctor could have cured this patient. Nature unaided by digitalis could not cause the heart to increase its muscular force, nor produce contraction of the arterioles and thereby augment the pressure within the kidneys, and thus improve the secretion of urine.

It is an extremely false and hazardous assumption to believe that nature is perfect and all sufficient, and that if a patient lets nature have her way he is better cared for and his chances for recovery are greater than when he is in the hands of a good physician.

Nature is not perfect, but it needs a great deal of help at all times. Burbank has demonstrated this many times over. The tendency of plant-life is, to deteriorate when uncared for. Just a small amount of attention, just a little coaxing, all of which is stimulation, not only makes the plant thrive, but it is greatly increased in growth, in beauty, and in production. Animal-life is amenable to similar treatment.

The same rule applies to man himself. Had it not been for the eternal vigilance of the medical man in finding means of cure and of preventing disease, the world would today be depopulated.

Man has improved over nature, in making vaccines in quantity, and in using them more liberally, and opportunely, in order to prevent and to cure diseases. Suppose a doctor should wait for nature to produce a necessary amount of serum when a patient was showing signs of infection, what would become, for example, of a diphtheritic or of a tetanic patient while sufficient protective fluid was being made in the body by superior nature? This illustration surely shows that nature

must be greatly assisted, and even generally so, if patients' lives are to be saved. This at least proves that the doctor is necessary, and does save lives.

While it seems superfluous to offer facts in order to prove the efficacy of medicines, it might be best to give the results in a very extreme condition, which show rapid improvement after the administration of proper remedies.

An Illustrative Case

A man of fifty years of age when first seen by me presented the following array of symptoms: Both legs, feet, and the abdominal walls as far as the lower border of the ribs were all markedly edematous, as were also the penis and scrotum. The pulse was very feeble, irregular, and beat 110 per minute. The bowels were constipated. The amount of urine passed was 4 ounces within twenty-four hours; specific gravity, 1018; but no albumin. This patient had been sitting up in a Morris chair for several weeks, because of dyspnea. The treatment up to this time had been without result and the patient had grown gradually worse.

The treatment now consisted in giving 3 grains of calomel, guarded with opium, three times a day for three days. On the second day, there was a slight increase of urine. This increased from day to day, until by the tenth day from 10 to 14 pints of urine were daily passed. At this rate, the edema soon grew less and gradually disappeared. In the course of several weeks, this patient was able to walk about the house. He made a good recovery, and lived five years thereafter, finally dying of the results of empyema.

Without the administration of calomel or some similar remedy, this patient could not have recovered. It is natural to infer that the great increase in amount of urine, from 4 ounces a day to 14 pints, was caused by the calomel, and that the restoration to health that followed also came as a result of the administration of calomel. In other words, probably plebeian in character, calomel—a medicine—*cured* this patient.

Medicines may generally be classed as being stimulants or as depressants. They can, therefore, either increase or decrease the various functions of the internal organs.

No one can successfully deny that medicines do modify even the normal functions of organs, nor can it be denied that in sickness medicines may modify abnormal functions and ofttimes restore them to the normal.

These effects are brought about through the action of medicines directly upon the nerve-centers. In this way, some medicines increase secretion and motion, while other medicines decrease them.

Upon What Does Success Depend?

Success in getting proper action through medication depends upon one's ability to select those remedies that can produce desired results. Some physicians are very much more successful in obtaining such results than are others, because they are more familiar with the details and with the definite action of drugs in increasing or in decreasing deranged functions, according to the needs of the case in hand.

No doubt failure to cure disease by the administration of medicines is due not so much to a lack of curative properties in medicines themselves, but results rather from an improper selection of remedies that are indicated, and from treating disease as an entity, instead of being definitely guided by the conditions present in each particular patient.

Diseases cannot be rightly treated as a whole. That symptom which is most prominent, most annoying, most greatly concerned in producing serious results should be definitely treated. Medicines should not be given, unless there are definite or specific conditions present for which that medicine is peculiarly and specifically applicable—if not specifically applicable, at least definitely so.

The folly of believing that medicines are without therapeutic values is very positively shown by the curative effect of quinine when given in malarial diseases; of mercury, in syphilis; of salicylic acid, in acute rheumatism; and of colchicum, in gout.

Many a nervous patient has been cured, when the spine was tender, by the administration of phosphide of zinc. Iron, quinine, and strychnine, commonplace as they are, have restored many an invalid to health. A course of saline laxative, of sulphocarbolates, of Waugh's anti-constipation granules have each cured many patients; bryonia has cured chronic pleurisy, cimicifuga has cured muscular pains. And so this idea may be carried through the entire list of drugs.

The probabilities are that each remedy of the many hundred known to physicians has some cures credited to it. If this were not true, as a rule, medicines would not have been listed or recommended as being curative, or at least alleviative.

It seems that the word "cure" is objectionable. According to the highly ethical, a doctor has no right to say that he can cure

disease; he should not make such a claim. The most that he ought to say is, that he treats disease, but, cures—never! Likely he may say, "Yes, but the sun does move, anyway." We may say, just to be very ethical, that nature cures, but, nevertheless, the doctor who gives the medicine is the one who cures. The bullet kills, but the man who shot the bullet is the one who is held responsible.

Large doses of common castor oil or of plebeian epsom salt have saved sick people who were surely passing away from the effects of acute peritonitis. In these cases, improvement was manifest as soon as thorrough evacuation was begun, and recovery often followed very rapidly thereafter.

Why were such results obtained? Because these household-medicines contained curative properties which, when permitted to act at the proper time, stimulated certain functions, which led to changes that resulted in the restoration to health. Of course, there had to be something to work upon; but, without these remedies—there would have been no work.

In many other cases, it is the same as in that of peritonitis: nature is paralyzed, and would remain paralyzed but for the taking of a little medicine that properly stimulates.

Very wise men will quibble and say, that castor oil and epsom salt are, of themselves, without curative properties. Perhaps they are if they remain forever upon the shelves and are never administered. Nature often needs some sort of castor oil, it often cries out for it very strongly; but we, who ought to be able to interpret the call, can not always do so.

Heart Stimulants in Pneumonia

When to Use Them, and When Not to Use Them

By C. W. Canan, B. S., M. D., Orkney Springs, Virginia

FROM the tone of some of the recent papers on the treatment of acute lobar pneumonia, containing reports of long series of cases without a death, it would seem there are men who believe they have discovered a specific treatment. These writers have modified each particular plan of treatment, and improved it, until each believes it as near the right procedure as can be evolved; nevertheless, in the face of all of this, our death rate in the year 1912 was 18 percent, and in 1913, 28 percent.

It is impossible to lay down any specific line of treatment, for each case must be treated according to the condition present. It is easy to talk of aborting pneumonia—and it can be done—but how many cases do you see early enough to do this? The fact remains, however, that in many of the cases that fall under our care, the treatment resolves itself into a desperate fight to keep the patient alive until the disease has spent its severity. In other words, the fight on the doctor's hands is, to keep the heart going until the condition ends either by crisis or by lysis.

Don't Over-stimulate

Before discussing the merits of various heart stimulants, we want to say that, if there is a nice point for the physician to decide in the whole line of treatment, it is to know just when stimulation of the heart is indicated in pneumonia.

One of the things that nature does in this disease is, to stimulate the heart, and she, like the physician, is liable to overstimulate. We must study nature and be ready to arrest her mistakes or to correct them. We believe that more cases of acute lobar pneumonia are lost through overstimulation of the heart than from any other cause.

If you can be with your patient or near enough to watch him closely, aconite is the remedy of choice. Its action on the skin and its power to overcome high arterial tension and to slow up the overacting heart are all in the patient's favor, if these effects are not pushed too far. But do not rely upon the common tincture—use the alkaloid instead.

Our experience through a number of years is, that digitalis is almost worthless in pneumonia. The reason for this we do not know, but the fact remains that digitalis is inert in pneumonia unless used in heroic doses; and this would, or should, preclude its employment here.

It is most important in this disease that the nervous system be wide-awake, particularly the vasomotor system and the cardiac nervous apparatus. In patients who die of pneumonia, it is evident that the cardiac

and respiratory nervous centers have gotten far behind with their work.

We have at our command one drug that will prevent this condition, and that is strychnine. The turning point in this disease depends upon what the nervous system shall be able to do in the control of the circulation. Strychnine keeps these centers awake and watchful, even while the patient sleeps. While we never have adopted it, we believe it good treatment to give this drug in guarded doses throughout the disease.

Cactus, given from the beginning, often will prevent a cardiac breakdown. We have medical friends who rely upon alcohol in one of its forms as their choice of a heart stimulant. In certain patients and certain conditions, it is true, alcohol does good work; however, it is impossible to know this to be so without actual trial.

Lest we forget, we want to state that we believe that more pneumonia patients die because of an engorged portal circulation than from any other cause. It will be found impossible to control the heart action as long as this condition obtains. In severe cases, the heart always is overworked trying to drive blood through a blocked-up lung; to say nothing of the extra strain from a blocked-up portal circulation. Very frequently, under such circumstances, an overworked heart is believed to be an indication for cardiac stimulants.

One Illustrative Case

We call to mind a case of this kind. A man 28 years of age (weight, 145 pounds) contracted double acute lobar pneumonia, and we were called in consultation on the fifth day. The patient's condition was about as follows: Respiration, 36; pulse, 148; temperature, 106° F.; skin, dry; tongue, heavily coated and as dry as a chip. The patient was delirious, picking at the bedding. Abdomen was prominent, lung-tissue over the diseased area was solid, right heart sound was inaudible.

The physician in charge had given the patient up, told the young wife that he had done all he could do. Turning the patient over to us, he took his departure. He had given the patient a hypodermic injection of 1-40 grain of strychnine and 6 minims of tincture of digitalis, just before I arrived. He had prescribed quinine, salol, and spirit of nitrous ether for two days previous. The patient's clothing and bed were soaked with water that had been used trying to reduce the high temperature.

We took charge of the case at 6 p. m. on the fifth day of the attack. We rubbed up thoroughly 10 grains of calomel with 30 grains of powdered ipecac and divided this into 10 powders, and one of these was given every hour until the bowels were cleared. While we were waiting for results, the patient was helped into dry clothing and the wet bedding was removed. Also a cotton-batten jacket lined with silk was snugly fitted on the patient.

The bowels moved six times between the hours of one and five o'clock—and what quantity! No one would think such a mass could be stored in the intestinal tract; and the odor was something fierce. The intestinal-antiseptic tablets were then pushed to effect, and ipecac was given alone every three hours.

The patient was improved in twelve hours, and in twenty-four hours the whole picture was changed: respiration, 26; pulse, 108; temperature, 101° F.; cough, easy; skin, active; tongue, clean and moist; and the patient was conscious. Resolution began at once, and with good nursing the patient made a good recovery. Had heart stimulants alone been used here the patient would have died, without a doubt.

We will report a second case of pneumonia, which we believe typical of an overburdened heart.

Farmer's son, age 17 years; weight, 178 pounds; of ruddy complexion; German descent. It was the sixth day of the attack. Findings; respiration, hurried and shallow; pulse, 130; temperature, 104° F.; cough, dry; kidneys, inactive; patient in acute delirium; skin, dry; lips and face, cyanosed; finger-nails, blue; in fact, the danger-signals were being displayed on every hand. The patient was taking one-half ounce of whisky every three hours, and cactus in between. The physician in attendance said that he had employed the usual treatment of quinine, acetanilid, and purgatives.

We, however, went back to our old standbys—calomel, ipecac, and squills. These were given at short intervals until physiological effect, then followed by intestinal antiseptics, strychnine, and nuclein. While we were waiting for the alteratives to get in their work, we threw open the doors and windows and let the crisp, frosty air blow in on the patient, as we did not have an oxygen-apparatus.

The change for the better was plainly manifest in six hours. As soon as the portal circulation was freed, the heart ceased its

rapid stroke, quieted down, and the cyanosis disappeared. The kidneys began to do their work. The acute delirium improved, but still gave us considerable trouble; however it finally yielded to the bromides and free elimination. The patient made a tedious recovery.

We believe that if there is free elimination, in conjunction with the judicious use of aconitine, conditions such as described above should be obviated.

[In one point we disagree with Dr. Canan. Digitalis, or rather digitalin, used in small repeated doses, together with aconitine or veratrine, steadies and supports the action of the heart, while the defervescent alkaloids relax the grasp of the arterioles. These remedies (veratrine being replaced by strychnine arsenate in asthenic cases) give almost ideal results when properly used. We are in accord with Dr. Canan regarding the portal circulation and intestinal antisepsis.—ED.]

Some Startling Experiences

In Which Alcoholism Played a Part

By T. D. CROTHERS, M. D., Hartford, Connecticut
Author of "Inebriety"; Superintendent of the Walnut Lodge Hospital

EVERY physician having a large practice passes through a variety of experiences that are intensely vivid as well as personal; events that never appear in print, and belong to that great undercurrent of life, with its tragedies, romances, successes, and perils, that seldom come to the surface.

That use of alcohol and drugs sends a large army of really good men and women toward the frontier of insanity, and keeps them in that debatable territory, and over which these victims alternately pass and return with a sort of a lurid intensity that words can not describe.

The incidents I am going to describe are so natural and realistic as to be possible of occurrence in almost any circle and condition of life.

Death From Chloroform During Acute Alcoholism

A gentleman of some property, who was engaged in the manufacturing business and the head of a large family, at times drank spirits to excess. At these times his family physician would be called upon, and under the latter's care he always soon recovered. He was a man of good reputation in the community, and these drink-episodes were concealed as far as possible. However, as the years passed by these spells became worse and of longer duration, and eventually were marked by delirium, so that he would require the attention of two or more nurses. After recovery, his remorse was very intense and his expressed determination thereafter to abstain permanently was most emphatic.

It would seem that when he began to drink the most intense indignation and sorrow filled his mind, and he immediately became deluded with the thought that others had tempted him, and also that events in his family-life were responsible for his drinking. On such occasions he was very violent, broke furniture and tried to injure his family. This would last a day or more, then end in a prolonged sleep and slow recovery.

On one occasion, this man was particularly violent, and the family doctor, who ordinarily was able to quiet him, became the object of his intense hatred. He would not permit him to do anything and had to be restrained from harming him. The physician, as a last resort, poured a small amount of chloroform upon a handkerchief and threw it over the patient's face while he was struggling with the attendant, and held it there for a few moments. Suddenly the man relaxed and was dead, to the intense horror of everyone present.

The family and their advisers immediately concluded that the doctor had killed the patient, and they appealed to the coroner to have him arrested. The coroner was greatly confused. Some rival physicians in the neighborhood shook their heads wisely and concluded that the doctor had made a great mistake.

The autopsy revealed an enlarged heart, congested brain, suffused lungs, and a great variety of other lesions, all of which might or might not have been influential in causing the sudden death. An officious lawyer saw the chance to make some money, but with

shrewdness appealed to me and others for advice.

The facts were undisputed, and the only question was, whether the man died directly from chloroform, and whether the quantity employed was poisonous and fatal in amount. There could be no question about the sudden inhalation of chloroform vapors having produced rapid and fatal anesthesia. The brain and nervous system were in a condition to experience shock of any description. Some traumatism might have produced a ruptured artery and sudden death. The violent efforts of those in attendance in holding him down would have done the same thing, so that the sudden inhalation of chloroform vapor was of the nature of a traumatism, suspending vital forces and chemically paralyzing the respiratory centers. The autopsy did not reveal any ruptured arteries, but evidently they were there.

A great deal of literature was accumulated, and the attorney found that there was some obscurity about the case that did not promise much success. The neighboring doctors did not join warmly in the defense of the physician, and an "expert" from a neighboring city displayed a profound ignorance that was quite phenomenal.

I affirmed that administering chloroform in delirious cases by no means was an unusual measure and that under the circumstances the doctor was fully justified in using any measure to restrain the patient. The family, although they had suffered for years from these drink attacks, seemed to think that the doctor was in some way responsible. Eventually the incident closed, and the coroner considered that the matter was settled beyond question.

Morphine Poisoning Kills an Alcoholic

A second incident was that of a periodic drinker, who at times was intensely religious after drinking, went to church, and became the subject of conversion. After leaving church, one night, in a highly ecstatic state, he called upon the family physician, who gave him 1-4 grain of morphine, then urged him to go home. The physician had done this thing before many times, without any bad results following.

This time the man lay down and went to sleep in a woodshed. He was taken up by the police, who decided he was suffering from morphine poisoning. Later he died. The doctor acknowledged to have given him the narcotic, whereupon the family and friends blamed him for killing the man; indeed, one newspaper affirmed that he was the murderer and demanded that he be arrested. The doctor promptly sued the paper for libel, and the charge was dropped after awhile.

In this case, the physicians in the neighborhood joined most heartily with the doctor in defending the latter's use of the morphine. As in the other instance, an officious lawyer sought special advice and expert testimony from all sources, but finally gave it up and announced that he would in the future make a test case of this.

The dose of morphine given was exceedingly small, but its fatal effects were most unusual. Many physicians give morphine in doses of from 1 to 3 grains in the delirium from alcohol, without any untoward effects. In most such cases, morphine is not absorbed, except in small quantities; yet the condition is such that the narcotic may or may not be active. A great many very curious facts are centered about this inquiry which would make the subject of a most interesting paper.

An Injury While Drunk

The third incident occurred under my personal observation. A very warm-hearted, sympathetic physician was treating a woman in the advanced stages of consumption and was giving her all the delicacies he could afford besides frequent attendance. One day, when calling, he saw her partly drunk husband striking her and otherwise abusing her in solicitations that she give him money. The physician was so angry that he rushed in and grabbed the fellow and threw him down on the floor, pounding him on the head to unconsciousness and breaking his thigh-bone. The man passed into a deep comatose state, and the physician, recovering his senses, had him taken to the hospital at once. The doctor appealed to me for help, fearful that the man would die, and that he would be responsible.

In the hospital, the physicians wanted to give the patient strychnine and other drugs. He was placed in a private room, and the limb was properly splinted. The patient was given nothing but water and sulphate of magnesium for three days. The comatose condition lasted for nearly two days, when the man began to recover slowly. Then carefully selected diet in small quantities was given, but no drugs whatever. He slowly emerged from his condition, but did not seem to have any consciousness of how he became hurt. The bone healed properly, and after a month or so in the hospital he was able to

go about. Fortunately there was a blank of memory, which apparently began after he had taken a drink at a certain place and was told that he would never get any more unless he paid for it. This mental blank continued until he found himself in the hospital, several days after the injury.

Two curious facts followed. The wife, who witnessed the assault, began to recover from her sickness and, under the extraordinary care of the physician, was able to go out. After a few months' residence in a sanitarium, she returned home fully restored; while the husband had lost all desire for drink, became a very strong total abstainer, and went to work; and now, two years later, he is a strong, robust man, is entirely changed in his nature and now is very much devoted to his wife.

The doctor declares that this incident aged him several years, and no one realizes that the terrible bruises this poor fellow received and the broken leg were the direct result of an assault.

THE HAND

By Jas. A. DeMoss, M. D.

The mechanism of the hand:
What wrought it, made it, who hath planned
This lively instrument, unique,—
Ye wise men, sages, who will speak?

Tell how it formed and how it grew,
How took its shape and cunning too;
What made it dexterous and exact
In motion, numberless in act?

What prompts by bidding of the mind,
And acts, too, that are not defined,
To spring and serve with strength and grace,
Nor marred by a reluctant trace?

The arch within the palm who laid,
Filled with hot blood the heart conveyed,
Whose generous warmth and feeling grasp
Friendship conceals within its clasp?

Tell how the soul on finger tips
Out to the world in silence slips;
And how the blind may know and see
The world by its new visionry!

Yes, tell us all about the hand,
The what or who created, planned,
And I will bow in reverent mood
Worshipful of its great godhood.

What Others are Doing

IODINE IN DIABETES OF THE AGED

While not exactly latest news, it may not be amiss to refer to a suggestion made within a year by A. Lorand, of Karlsbad, anent the treatment of diabetes in the aged. Lorand, as the readers know, has made a specialty of the study of the internal secretions and, concurrently, of the disabilities of old age. In this way, he tells us (in a contribution to the *Journal des Practiciens*, May, 1913), he "stumbled" upon the value of iodine in the disorder named.

It appears that Lorand prescribed iodine for a 60-year-old man for his marked arterial sclerosis, but was greatly surprised upon finding the sugar disappear from the urine. Later, treating a diabetic women of 55 for a recalcitrant asthma, he again got the same results, as to the urinary glucose, from a course of iodine. Then, in view of these unforeseen results, Lorand consciously applied the iodine therapy in a case of pure senile diabetes, and with the same happy outcome.

This experience prompts Lorand to assume a specific action of the iodine upon the pancreas, and he invites experimentation at large. Calx iodata would seem just the remedy.

BARLOW'S ACUTE RICKETS AND VITAMINIC FOOD QUARTEINS

Once more the theory of deprivation-disease has been substantiated, in this instance in a case of Barlow's disease (acute rickets, infantile scurvy), the subject being an 11-months-old baby suffering from a severe attack, and which was being raised on Swiss milk (condensed, presumably.—ED.) and oat-meal.

Remembering the former observations of Holst and Froehlich with experimental scurvy (*Ther. Monatsh.*, 1912, p. 675), E. Freise, of the University Clinic for Children at Leipzig, began to administer to this rickety infant the alcoholic extract of sugar-beet (*Monatsschr. f. Kinderh.*, 1914, p. 687), and in the space of seven weeks it was clinically cured; although purposely the inculpated diet was continued exactly as before. A total of 13.8 Grams of exsiccated beet-extract was administered. Repeated Roentgen examinations showed the progressive reparative process in the bony structures.

The startling successes already attained with vitamin therapy in the brief period since its introduction promise, in the opinion of Freise, to afford us a newer and deeper insight into the still unsolved question of the etiology of many forms of pathologic states. In view of all the facts developed, this author makes the suggestion (by the editor of the *Monatsschrift* hailed as a happy one) that these newly discovered vital substances—that is, vitamin, oryzanin, and so on—be called, collectively, "quarteins"; inasmuch as they constitute a fourth group of foodstuffs indispensable to animal life, and supplementary to the carbohydrates, proteids, and fats, the three groups hitherto considered the essential nutrients.

NONOPERATIVE TREATMENT OF CICATRICIAL PYLORIC STENOSIS

When treating pyloric stenosis, the result of scartissue, with fibrolysin, J. V. Kovats, of Budapest (*Med. Klin.*, 1914, p. 457), has made it a practice to direct the patient to drink considerable water with each meal and, upon finishing, to lie down on his right side for forty-five minutes or longer; the idea being, to let the gastric contents assist in dilating the pylorus by their gravitational pressure.

Furthermore, in order to obviate pulmonary or cerebral hemorrhage, through the increased blood pressure caused by the fibrolysin, the author advises constant control of this phase, resorting to venesection the moment the danger-point may be reached.

THE USE OF EMETINE IN CHILDREN

According to De Buys, of New Orleans, (*Merck's Archives*, August, 1914, p. 266), amebic dysentery is relatively rare in children. However, it does occur at this period of life, and seven cases are cited.

Two cases of infantile dysentery are also reported by Captain R. G. Archibald of Khartum (see *Journal of Tropical Medicine*, 1914, No. 11, p. 161). One little English girl, two and one-third years old, having twenty-three passages in twenty-four hours, received 1-8 grain daily for a period of three weeks, the total amounting to 2 1-6 grains of emetine. Her sister, age eight months, having six movements daily, required only four doses of 1-12 grain each to effect a complete cure.

Captain Archibald is of the opinion that children will be found to be very tolerant of emetine, as they are of ipecac. He very wisely recommends that the alkaloid should be used continuously, once a week or once a fortnight, for at least three months after apparent cure.

ALBUMIN MILK — CASEIN-MILK — "EIWEISSMILCH"

The last one of the three terms given in the heading is the German—though in America quite freely adopted—name by which this preparation was introduced by Drs. H. Finkelstein and L. F. Meyer (*Jahrb. f. Kinderh.*, 1910, cxxi, p. 655 and 683) early in 1910.

Inasmuch as the formula for this mother-milk substitute never has appeared in these columns, while its employment in pediatric practice seems to be spreading, the same may find a place here for those interested, although, presumably, many families will prefer the readymade canned article, because of greater convenience. While this is *not* a write-up, we may add that the eminent pediatrist Leo Langstein, of Berlin, gives preference to the original, Finkelstein-Meyer, preparation, saying (*Ther. Monatsh.*, July, p. 483) that the canned article, as sold under guaranty, gives him better satisfaction than extemporaneous mixtures; indeed, it was the unreliability of the latter—owing to faulty technic—that first caused Finkelstein to have it prepared and canned in the laboratory. Incidentally the original directions for making the food were modified more or less, until the final standard was attained. The formula first published was reproduced (among others) in the *Archives of Pediatrics* for August, 1910, as follows:

Heat 1 quart of full milk to 100° F. Add 4 teaspoonfuls of the essence of pepsin and stir. Let this mixture stand at 100° F. until the curd has formed (this usually takes about one-half hour). Filter the whey from the curd by means of a linen cloth, and discard the whey. The curd is then removed from the cloth and pressed through a rather fine sieve two or three times by means of a wooden mallet or spoon. One pint of sterile water is added to the curd during this process. The mixture should now look like milk, and the precipitate must be very finely divided. To this mixture 1 pint of buttermilk is added.

The authors ascribe to the product this composition: albumin, 3 percent; fat, 2.5 percent; sugar, 1.5 percent; ash, 0.5 percent.

In relating his experience with this food (prepared extemporaneously by the nurses), Jules M. Brady, professor of diseases of children, at St. Louis University, states (*Jour. Amer. Med. Asso.*, 1911, p. 1970) that he prepares the buttermilk by inoculating fresh milk with tablets of lactic-acid bacilli; letting the milk stand twenty-four hours and then churning with an egg-beater. He also corroborates Brennemann (*Amer. Jour. Dis. Chil.*, 1911, p. 341), that, following this formula, first boiling the milk facilitates passage of the curds through the hair-sieve. (Metal and wire sieves must not be employed!)

On this, Doctor Brady comments: "One must say that the results with this food approach very near the good results from breast-milk in the various (appropriate) conditions." After a while the nurses overcame technical difficulties and turned out a beautiful mixture; and there no longer is a desire for the imported canned article.

For the essence of pepsin, Brady often substitutes a rennet tablet; the water for rinsing the sieve he first boils, then cools to 100° F.—the same temperature to which he warms the fresh milk. Furthermore, he passes the curds through the sieve from twelve to fifteen times, instead of the few times named in the formula.

Of course, this is not a general food, and the cases must be carefully selected. But that is another phase.

NIEMANN'S MILK MIXTURE FOR INFANTS

More harmful than any other constituent of milk—so far as infants are concerned—are the low-grade, volatile fatty acids of the milk-fats, in the opinion of Niemann, and this investigator has evolved a mixture for a mother-milk substitute designed to overcome that objection. This is his formula:

Butter	Gm. 50
Malt-extract	Gm. 50
Skim-milk	Gm. 500
Decoction of mondamin (5-percent)	Gm. 500

The butter (which must be of the highest grade) is washed by kneading it thoroughly in cold water, changing the latter at least eight or ten times—sufficient to insure the dissolving out of all the objectionable constituents. Then, by proper means, this butter-fat is emulsionized with the other ingredients. In this mixture the child receives a relatively large percentage of fat, more than can be conveyed by means of cows'-milk, while being adapted for those infants not thriving upon the customary milk mixtures rich in carbohydrates, but poor in fats. (Mondamin, by the way, is the fancy name of a favorite German proprietary. It is nothing but corn-meal deprived of its oil.)

Now, however, Langenstein (in his article already quoted in our September issue, page 808) raises objections to this nutrient, both upon theoretic grounds and because of his very unsatisfactory experience with it in practice. The latter, though, was limited.

ADDITIONAL NOTE ON LAROSAN FEEDING

Based upon his experience with larosan feeding (Cf. September, p. 808) in the cases of 19 extremely emaciated infants (ages between four and forty weeks), H. Kamnitzer finds (*Deut. Med. Woch.*, 1914, p. 855) as follows:

All in all, the patients did well under the larosan regimen, and their stools became firm; nevertheless several serious complications and two deaths resulted, so that the author considers it an open question as to whether the Finkelstein albumin-milk is not to be preferred, as a rule.

AUTOINTOXICATION AND SENILITY

Dr. I. L. Nascher, of New York, has a very interesting paper in a recent number of *The New York Medical Journal*, in which he traces the analogy between Lane's autointoxication complex and the manifestations of senility.

As will be remembered by our readers, Lane, in his classical studies of chronic intestinal stasis, mentions seventeen symptoms resulting directly from this condition. Among these symptoms are: loss of fat, wasting of the voluntary and involuntary muscles, degenerative changes in the skin, subnormal temperature, tendency to apathy or melancholy, rheumatic aches and pains in the muscles and joints, wasting of the thyroid gland, increase or decrease of the blood pressure, degenerative changes in the breasts, visceral prolapse, degenerative changes of the heart, derangement of the kidneys, loss or whitening of the hair, and various affections of the pancreas, liver, gall-bladder, eye, and the like.

It is certainly significant, as Doctor Nascher points out, that all these symptoms also occur during senility. While he is not convinced that old age can, by analogy, be ascribed to intestinal autointoxication, there certainly is strong evidence to support the belief that the alimentary canal has much to do with the appearance and the signs of advancing years. This, of course, is the theory of Metchnikoff brought down to date.

It is a significant sign of the times that the medical profession is going back again to the ideas so ably presented years ago by Bouchard. While it hardly is likely that the removal of the bands and kinks interfering with bowel drainage, or even colectomy (as suggested by Metchnikoff before Lane appeared on the scene), may prevent men from growing old, there is no doubt in our mind that careful attention to the toilet of the alimentary canal will delay the senescence which is inevitable for all of us.

The Belgian master Burggraeve recognized the importance of this factor in disease and practiced prophylaxis through the daily use, in his own person, of a laxative saline, thereby providing for effective bowel drainage—and he lived to be nearly one hundred.

We predict that sometime the epigram "A man is as old as his arteries" will be changed to read, "A man is as old as his bowel." Very often, we are sure, degenerated arteries are but the evidence of an overworked and imperfectly functionating alimentary canal.

BACTERIN AND SERUM THERAPY IN SEPTICEMIA

An interesting report of 111 consecutive cases of severe septicemic infection, taken from the records of the Presbyterian Hospital in New York City, is published by A. Campbell Burnham in the May, 1914, number of *The Annals of Surgery*. These cases occurred between 1905 and 1913 and represent those treated by several physicians attached to the hospital staff.

The method of treatment employed has changed considerably during the years in which these cases occurred. For instance, during the earlier part of the period, bacterins were never employed. The cases treated fall

into five groups, as follows: (1) those following abortion of labor; (2) those following infected wounds and abscesses; (3) those associated with osteomyelitis and arthritis; (4) those associated with malignant endocarditis; (5) miscellaneous. The mortality in the entire series of 111 cases was 66.6 percent. However, it should be remembered that many of these patients were already in a desperate condition when they were admitted to the hospital. Many of them were treated before the improved methods now in use had been adopted.

In 50 cases following abortion of labor, there was a mortality of 54 percent, the termination of 2 being unknown. The record of the leukocyte count in these cases was very interesting. The conclusion is that a high leukocyte count usually indicates a complication. Yet, the type of infection had little or no influence upon the number of leukocytes, and the number of these found in the blood is not, apparently, of so much prognostic significance as is usually believed. However, patients doing well under treatment usually show a diminishing leukocyte count, with a diminishing percentage of polynuclear cells.

In this series, antistreptococcic serum or vaccine, or in some instances a combination of both, was administered in 17 cases, with 11 recoveries and 6 deaths—a mortality of 35 percent, as compared with a mortality of 68 percent in the remainder. Burnham quotes his own experience and the statistics of several clinicians, to emphasize the importance of the early administration of the antistreptococcic serum.

While the streptococcus is not present in every instance, the percentage given ranging from 58 to 93, according to various reporters, the serum, nevertheless, is bactericidal and should certainly be given to every patient suffering from puerperal sepsis, without waiting for the bacteriologic diagnosis.

The results obtained in this series were distinctly favorable to the use both of the serum and the bacterin. The results seemed particularly favorable when the serum was given early and followed a little later by the autogenous vaccine, the mortality in all instances being reduced to 33 percent.

The results were equally favorable to the use of serum and bacterins in other classes of septicemia reported by Burnham. Thus, for instance, there were 20 cases following infected wounds and abscesses, with a mortality of 75 percent. Only 4 of these patients received the specific treatment, and in these there was only 1 death—a mortality of 25 percent. Every one of 10 patients having positive blood cultures, and who were not treated with bacterins, died.

Without going into details, it may be said that the death rate was decidedly reduced in all forms of septicemia by recourse to specific methods of treatment.

Doctor Burnham's conclusion is that both the antistreptococcic serum and the bacterin are of great value, the former being especially indicated in the early stages, when its bactericidal powers are most pronounced. Given in sufficient dosage during the period of infection, this serum often will change a systemic bacteremia into a localized infection.

The most efficacious of all is the combined treatment, giving the serum early, followed by the use of autogenous bacterins just as soon as they can be prepared from subcultures. Stock bacterins may, of course, be employed —and their use saves time—but Doctor Burnham believes them inferior to the autogenous.

MILK-SICKNESS

A number of years ago, we published several short papers from physicians reporting their experience with that unusual and rapidly disappearing disease called "milk-sickness" or (in animals) "trembles." In recent years, this ailment has become so uncommon that now many able practitioners question the existence of any such disease.

We now find an article upon this subject in the August, 1914, number of *The Illinois Medical Journal*, written by Dr. A. J. Clay, of Hoopeston, Illinois. Doctor Clay ascribes this disease to the ingestion of eupatorium ageratoides (white sanicle). Frequently this weed is eaten by the animals during the dry season, when the grass is gone and the animals are driven to shady places, where it luxuriates. He was able to produce the disease in two young cattle and one sheep, which were fenced in on a barren lot and compelled to eat the plant, cut fresh at each feeding. Within three days all three of these animals were dead, after presenting the usual symptoms of "trembles."

The disease is produced in human beings by using the milk of cows that have fed upon the eupatorium. Doctor Clay refers to 17 cases seen in four different localities, 9 of which ended fatally. In every instance, the origin of the disease could be traced to the use of milk from cows pastured in localities where the plant grew in large quantities.

After an incubation-period of two to five days, the patient generally shows anorexia, languor and fatigue, followed later by nausea and vomiting, the latter being so intense that usually he is unable to take food or water. After one to three days of prolonged vomiting, a condition of exhaustion sets in, followed by restlessness, mental dulness and partial or complete unconsciousness. There is obstinate constipation, scanty urine, abdominal pain, and at times pain in the calves of the legs, followed by stiffness. Patients often have hiccough, and swallowing is difficult.

There is extreme thirst, a fetid odor from the breath, and marked tremor of the tongue, which as a rule is red, large, and later parched and fissured. The pupillary reaction is sluggish and the conjunctivæ are reddened. First the abdomen is scaphoid, but later tympanites occurs. The patient usually lies on the back, with the head turned sideways and the legs drawn up, knees apart. The skin is cold and clammy, pulse irregular, and temperature subnormal. Generally the blood pressure is low, sometimes falling to 67. Respiration is irregular and of the Cheyne-Stokes type. In some instances, these patients pass into a subacute or chronic state.

The outlook is very grave both in the acute and the subacute attacks. In the acute form, the patients usually die between the second and the ninth day, but occasionally they are sick for weeks or months.

Owing to the active principle of the plant having a marked affinity for alcohol, Doctor Clay believes this to be the best antidote. As a rule, he avoids purgation, rather washing out the lower bowel with a solution of sodium chloride and sodium carbonate, 15 grains of each to the pint; the enemas being repeated every two hours. In subacute cases, castor-oil may be given.

SALVARSAN AND MERCURY IN EARLY SYPHILIS

The safety of salvarsan in the treatment of syphilis seems well demonstrated by Gibbard and Harrison, who, in *The British Medical Journal* (Nov. 22, 1913, p. 1341), state that no deaths or symptoms causing any alarm have followed its use in any of the 3800 injections given at the military hospital at Rochester Row. Out of some thousand injections administered at the Portobello military hospital, Dublin, there has been one death; and, after 6000 injections given by American army surgeons, one death only can be attributed to the salvarsan. In each of these two cases, death followed after the second of two injections given fourteen days apart.

After a careful study of the methods of treatment for early syphilis practiced by themselves and others, the authors have finally come to adopt the following method of treatment:

They begin with an intravenous injection of 0.6 Gram of salvarsan; then give five weekly injections of mercurial cream [The composition is not given, but presumably this is the well-known gray oil.—Ed.]; then a second intravenous injection of 0.6 Gram salvarsan, followed by five more weekly injections; and finally a third intravenous injection of 0.6 Gram salvarsan.

The authors advise beginning treatment as early in the primary stage as possible, insisting upon the patient's receiving not less than three salvarsan and ten mercurial injections in the manner described; and on no account must there be neglect of subsequent observation, both clinical and with a Wassermann test, to make sure that the disease has been eradicated. Do not pronounce a patient cured until he has remained free from all signs of the disease, either clinical or the Wassermann reaction, for at least a year after suspension of treatment in primary cases, and two years in secondary cases.

ELEMENTS INVOLVED IN THE CAUSATION OF CAISSON-DISEASE

The factors determining the production of the pathologic conditions developed in persons under compression or (more often) decompression of the air in which they are confined, as well as the individual ability to resist the same, have been discussed by A. Bornstein, of Hamburg, before the Berliner Physiologische Gesellschaft, and may be summarized as follows (*Berlin. Med. Woch.*, No. 20; cf. *Muench. Med. Woch.*, June 2):

In the first place, the liability to have an attack of caisson-disease (occasionally referred to as tunnel-disease—although this term really should be confined to ankylostomiasis), when the atmospheric pressure is reduced, depends, firstly, upon the saturation and the desaturation of the system with nitrogen; and, secondly, upon the readiness with which the heart [organ] permits gas bubbles to be formed within itself. But the degree of saturation with the gas depends, on its part, essentially upon the "minute-volume" of the heart; and, in addition, upon the insanguination of the heart [the organ in question] as compared with the total blood supply of the

entire body, and also upon the absorption-coefficient of the heart [the organ in question]; the latter, again, being determined principally by the proportion of fatty tissue of that organ.

The foregoing analysis of the situation, according to Bornstein, permits of a complete explanation of all the symptoms encountered in persons subjected to high atmospheric pressure.

IS MALNUTRITION A CAUSE OF PELLAGRA?

Many readers of Clinical Medicine will remember the article upon pellagra, written by Dr. C. S. Pixley and published in our June, 1912, number, in which the belief was expressed that this disease is due to an insufficiency of protein in the food. This theory has received strong support during the last few months through the publication of the investigations of Dr. Joseph Goldberger, of the United States Public Health Service, in Public Health Reports, September 11 and October 23, 1914.

Doctor Goldberger has arrived at the following definite conclusions: (1) that pellagra is not a communicable (neither infectious nor contagious) disease, but that it is essentially of dietary origin; (2) that it is dependent on some yet undetermined fault in a diet in which the animal or leguminous protein component is disproportionately small and the nonleguminous vegetable component disproportionately large; and (3) that no pellagra develops in those who consume a mixed, well-balanced, and varied diet, such, for example, as that furnished by the Government to the enlisted men of the Army, Navy, and Marine Corps.

Goldberger was led to these conclusions through careful study of the cases of pellagra occurring in state institutions in the south, especially in the Georgia State Sanatorium and in an orphanage in Jackson, Miss. It was significant that in neither of these institutions had a single case of pellagra occurred among employees. If the disease were communicable, or were due to the bite of a fly or some other insect common in the locality, then the employees should suffer in about the same proportion as the inmates. As this was not the case, other causes were sought. Investigation showed that the principal point of difference between the condition of the two classes, i. e., inmates and employees, was in the matter of diet.

At both institutions those of the exempt group or groups were found to subsist on a better diet than those of the affected groups.

Furthermore, as Doctor Goldberger succinctly states: "In the diet of those developing pellagra there was noted a disproportionately small amount of meat or other animal protein food, and consequently the vegetable food component, in which corn and sirup were prominent and legumes relatively inconspicuous elements, forms a disproportionately large part of the ration. Although other than this gross defect no fault in the diet is appreciable, the evidence clearly incriminates it as the cause of the pellagra at these institutions. The inference may, therefore, safely be drawn that pellagra is not an infection, but that it is a disease essentially of dietary origin; that is, that it is caused in some way such as, for example, by the absence from the diet of essential vitamines, or possibly, as is suggested by Meyer and Voegtlin's work, by the presence in the vegetable food component of excessive amounts of a poison such as soluble aluminum salts."

The conclusion is that the condition which favors the occurrence of pellagra is similar, at least in some degree, to that producing such other nutritional diseases as, for instance, beri-beri or scurvy. In other words, it is due to a one-sided, or eccentric, diet. The condition causing such dietaries is principally economic, i. e., brought about by a progressive rise in the cost of food. As a result, certain classes of people subsist too largely, especially in winter, on the cheaper cereal, corn, on sirup and molasses, and the readily procurable vegetables and fats. It is true that well-to-do people may suffer from pellagra, but this is usually the result of some eccentricity of taste and such eccentricities are particularly common in the insane, many of whom, because of apathy or indifference, it is difficult to persuade to eat at all. It was this fact which explained to Doctor Goldberger the comparative frequency of pellagra in institutions for those of unsound mind.

What food, then, should be recommended for the prevention and cure of pellagra? Doctor Goldberger says that the patient should be given and urged to take an

abundance of fresh milk, eggs, fresh lean meat, and beans and peas, the latter to be fresh and dried, not canned. In cases presenting marked gastrointestinal symptoms, the diet for a time may be limited to these articles. When there is only moderate gastrointestinal trouble, it is desirable to add, in restricted amounts, such cereals as oatmeal, rice and barley, together with potatoes, onions and fresh vegetables, fresh or dried fruits, and wheat or rye bread or biscuits. So long as symptoms of pellagra are present, he prefers to exclude the corn products from the dietary, not because they are unwholesome or innutritious, but rather because the disease occurs very frequently in association with a diet in which corn and its products form a disproportionately large part. He also discourages the use of molasses, jams or starches in those suffering from, or predisposed to pellagra.

Finally, Doctor Goldberger says that the evidence is daily becoming stronger, that the eventual eradication of pellagra in the south will depend largely on the introduction into the dietary of our common dried legumes. He recommends more general cultivation of beans and peas in this section of the country.

In this connection read the editorial upon pellagra published elsewhere in this number. While the dietetic treatment is no doubt of exceeding importance, there is abundant evidence that the medicinal treatment is of value, and this certainly should not be neglected.

AMEBAS NOW FOUND IN THE TONSILS. ORAL AMEBIASIS AND SYSTEMIC DISEASE

Both pyorrhea and tonsillar disease have for some years been suspected of responsibility for various systemic diseases, including arthritic affections, degenerative diseases of important organs, anemias of obscure origin, and even gastric and intestinal disorders. The discovery by Barrett that the entameba buccalis is apparently the cause of pyorrhea therefore suggested to Smith, Middleton, and Barrett (*Jour. Amer. Med. Asso.*, Nov. 14, p. 1746) the possibility of some cases of tonsillitis or tonsillar hypertrophy being due to the same cause. They accordingly began the study of diseased tonsils. Seventeen tonsils removed by Dr. Ralph Butler of Philadelphia were examined, 5 of these showing motile amebas of the type of entameba buccalis, while in the sixth case an ameboid cell of a different type was found. The tonsils of the 5 persons in whom the typical organisms were demonstrated were all large, with pouting crypts, and they were removed from young persons presenting the usual local and general symptoms of chronic tonsillitis, with irregularly occurring exacerbations.

These findings are particularly interesting and important in view of the close relationship between oral amebiasis and systemic disease, particularly arthritis. The suspicion that the general disease may, in some degree at least, depend upon the presence of amebas in the mouth is strengthened by the discovery of these organisms in the tonsils of four out of six patients suffering from chronic arthritis. Of course it is not demonstrated that this ameba directly causes the systemic disease. As the authors state, there is reason to suspect "an important symbiotic relation between the protozoa and the bacteria" in cases of this character.

However, the administration of emetine, locally and hypodermatically, in cases of arthritis, gave results which certainly should encourage further investigation along these lines. For instance, one patient (Case 6), suffering from chronic arthritis involving the knees, ankles, wrists, elbows, and the small joints of the hands and feet, was found to be suffering from enlargement of the tonsils, with inflammatory symptoms around the crypts. The amebas were readily found in the material withdrawn from the tonsils. At irregular periods this patient had sore throat, and he had suffered from numerous exacerbations, and from a septic thrombophlebitis of the right internal saphenous vein. During one of his acute attacks, while confined to the hospital, he was treated with sodium salicylate and sodium bromide, but without appreciable effect on the arthritic condition. Then he was given 1-6 grain of emetine hydrochloride (through mistake, by the mouth),1-6 grain being ordered thrice daily, Within three days he was entirely free from the redness, swelling and pain in the joints, except in the knees. Within six days his arthritic symptoms had entirely disappeared, although the enlargement of the joints persisted.

In another case (Case 7), the patient suffered from subacute arthritic symptoms involving the joints of the neck, elbows,

wrists, fingers, knees, ankles and toes, continuously for five or six months, with irregular exacerbations throughout this period. This patient had suffered from pyorrhea, and his teeth had been removed, but numerous amebas were found in the pyorrhea pockets. The oral condition was treated locally with emetine hydrochloride, and in addition the drug was administered hypodermatically. Within four days the gingeval suppuration had ceased, the joint symptoms had subsided, and he was able to return to his employment, for which he had previously been incapacitated for some time.

The possibility that various obscure anemias, even pernicious anemia, may be produced by infection of the gums or tonsils with amebas has already been suggested, and several cases are cited in support of this position. In one of these cases treatment with emetine produced surprisingly good results. There was decided improvement in color and a gain of 15 pounds in weight.

These studies open up a new field to emetine therapy. If it can be demonstrated that oral amebiasis stands in a close causal relationship to arthritic and other diseases, then the possibility of benefit in these general infections following the administration of emetine must be considered; and the drug should certainly be given a fair trial, in connection with other indicated remedies, in troublesome cases of this character.

RADIOGRAPHY IN MIKULICZ'S DISEASE

Mikuliez's disease, it may be repeated here, consists in an infiltration and change into lymphoid tissue of the lacrimal and salivary glands, evidenced by swelling. This affection, according to several writers, among them Chinton and Aubineau, the latest to report (*Strahlentherapie,* IV, 2), is amenable to the influence both of Roentgen-rays and radium radiation in small dosage. Of course, only experts should employ these agents. A complete cure is effected within half a year, including that of the general health.

LOCAL ANESTHETIC USED WITH H-M-C IN 1000 MAJOR SURGICAL OPERATIONS

There are so many cases in which general anesthetics are contraindicated, especially when kidney, heart, or bronchial and pulmonary lesions are present, that J. A. Crisler (*Amer. Jour. of Surg.,* July, 1914. p. 110) believes that the physician should hail any safe substitute with delight. In more than 1000 major surgical cases, Doctor Crisler has used the hypodermic injection of hyoscine and morphine, followed by novocain as a local anesthetic. While this combination is not recommended as offering a solution for all the surgeon's anesthetic difficulties, the doctor does believe that it is effective in preventing shock and various harmful influences to the brain and cord.

Three years ago he began to use the H-M-C tablet for general effect, with novocain locally, in goiter operations. In cases where it would have been dangerous to use inhalation anesthesia, he obtained highly gratifying results with this combination. He gradually extended this method into the domain of abdominal surgery, and his results were so pleasing that this practice has almost become a routine with him.

His plan of procedure is as follows: Two hours before the patient should go on the table he is given an injection of morphine 1-4 grain and hyoscine 1-100 grain. This is repeated one hour before and again thirty minutes before operation actually begins. This places the patient in a semicomatose condition from which he can easily be aroused. This, says Doctor Crisler, is an important point to keep in mind, since in subsequent handling of the patient great care should be exercised not to disturb him, either by noise or other interference which would cause him to awake.

At the time of operation, a 2-per cent solution of novocain is injected into the line of incision. Five or six minutes later an incision can be made through the skin and down to the fascia without pain or disturbance of the patient. He then throws some of the solution under the fascia, into the muscles, and as these are separated, he gradually introduces a small quantity into the peritoneum. After entering the peritoneal cavity, some of the solution is injected around the pathological tissue to be removed. In this way the operation can be made quite free from pain and shock, and without any inhalation anesthesia whatever in the majority of cases. However, when the surrounding tissues are violently inflamed, as around pus tubes or a gangrenous appendix, there may be evidence of pain, and occasionally some re-

sistance on the part of the patient, requiring resort to ether or nitrous-oxide gas.

Doctor Crisler says that in none of his cases has he seen any idiosyncrasy to the use of hyoscine. In about 25 per cent he has found it necessary to give a few whiffs of ether or a little of the nitrous-oxide gas.

The advantages claimed for this method are: (1) Less fear of the anesthetic; (2) less nausea after operation; (3) diminished liability to irritation of the kidneys; (4) no tendency to irritate the bronchial mucous membrane; (5) less likelihood of irritation or degeneration of the liver cells.

The one disadvantage of the method is the longer time necessary to perform the operation, since the patient must be exactly right at the beginning, and the local anesthetic must be employed several times during the operation, when the various layers of tissue are exposed. However, Doctor Crisler declares that time does not weigh very heavily against its important advantages, unless in the hands of a surgeon who is too busy to respect his patient's welfare.

AN ARSENOBENZOL COMBINATION

Although starting from Ehrlich's original work in arsenical chemotherapy, Danysz (*Ann. d. l'Inst. Pasteur,* Mar., 1914) tells how he proceeded independently on these lines, and finally arrived at a combination of the bromide of silver with dioxydiaminoarsenobenzol for the treatment of trypanosomiasis and syphilis; his thought being to fortify the arsenical compound by the silver, each element acting in its way without individually overwhelming the infected host. Thus far he had treated 80 syphilities, and the results were promising.

CAN THE SURGEON CURE VALVULAR DISEASE OF THE HEART?

In the July number of the *Annals of Surgery* (page 1), Alexis Carrel of the Rockefeller Institute (now serving in the French army) describes some animal experiments which give promise of the eventual mastery of a class of diseases now thought incurable, i. e., the organic diseases of the heart. These operations were performed upon the pulmonary and aortic orifices, dogs being used as experimental animals.

Before beginning operation it was of course necessary to arrest the circulation completely. This was accomplished by clamping the pedicle of the heart *en masse* with large forceps, the jaws of which were covered with rubber. The heart was not taken out of the pericardium, but an incision was made in this membrane just large enough to admit under the pedicle one of the jaws of the forceps. Great care was taken to see that the position of the forceps was exactly right with a view to rapid subsequent performance of the surgical operation, so that not a second should be wasted.

After perfecting the technic, it was found possible to keep the pedicle of the heart clamped for 2 1-2 or 3 minutes without any subsequent trouble in restoration of its function. As soon as the clamp was removed, the heart would resume its pulsation, and after a short time this would again become normal. Two and a half minutes, says Doctor Carrel, appears to be a sufficient time for the performance of several operations upon the valves.

The aortic and pulmonary orifices were exposed by means of an incision made through the anterior wall of the great arteries at the level of or just a little above their junction with the heart. The incisions were made with scissors of unequal blades, one of the blades being sharper and longer than the other, thus permitting of the perforation of the wall of the artery or heart before cutting.

The opening of the ventricles or of the pulmonary artery and the aorta is always followed by entrance of air into the heart. This is a source of danger, since when the circulation is reestablished, air emboli are likely to be sent through the coronary vessels, resulting in fibrillary contractions of the heart and consequent death. To prevent this accident, the air is aspirated by means of a large needle or cannula, introduced into the ventricle or into the aorta and connected with a vacuum apparatus. Such aspiration is rapidly performed just before the removal of the clamp and the reestablishment of the circulation.

Several operations were performed by Carrel upon the valves and vessels; for instance, the sigmoid valves of the aorta were exposed and cauterized, and the pulmonary orifice was cut after the wall had been patched with a piece of vessel preserved in cold storage. These interesting operations are described in detail in Carrel's paper.

Of special interest is the relatively slight mortality following these operations. Doctor Carrel says that in eight cases the pul-

monary orifice was incised and patched. Six of the dogs survived the operation. One died of pericarditis, probably due to handling the heart without rubber gloves; the other dog died on the operation table of fibrillary contraction of the heart, this being due to an error of technic. In the six remaining cases, the animals sustained no shock, recovered completely from the operation, and six months afterward were still in good health. In two cases, due to operative errors, there was a marked diastolic murmur present a few weeks after operation. However, these murmurs disappeared after five months.

Three animals had their sigmoid valves opened, exposed and sutured, and all of these animals recovered, and none of them sustained a perceptible shock during the operation; in fact, in the afternoon of the day of operation they were all entirely normal, and twenty-five days afterward they were said to be in excellent condition.

A NEW METHOD OF USING RADIUM

An ingenious method of making applications of radium to inoperable tumors, is described by Walter C. Stevenson, in *The British Medical Journal* of July 4, 1914 (p. 9). It consists in the introduction of small quantities of radium within the caliber of hypodermic needles, which are subsequently plunged into the body of the tumor. The radium may be enclosed in small glass capillary tubes, the latter being pushed into the needle canal. Five or six, or more or less of these needles may be inserted into the body of any tumor.

Two interesting cases are described. One was an inoperable malignant tumor of the parotid gland. Five needles, charged with the radium as described, were driven into this body. These contained altogether 5.08 millicuries of radium emanation. At the first sitting they were left in place an hour and a half. At the next treatment the quantity of emanation was reduced, the average employed being 4.8 millicuries. Apparently daily treatments were given, the total treatment consisting of 37 1-2 hours of application. At the end of the course of treatment the size of the tumor was greatly reduced and the condition of the patient much improved in every way.

The second case described was one of excessive scar formation on the wrist following a burned and lacerated wound received five years before. The wrist and fingers were fixed in a flexed position and the whole hand was quite rigid. Six needles were inserted into the scar tissue as already described, these needles containing a total average of about 5.5 millicuries of radium emanation. After five days the scar was soft and the wrist could be straightened, while the thumb and finger could be flexed to a considerable extent. Doctor Stevenson declares that the results obtained in other cases under treatment were also encouraging.

FOOT AND MOUTH DISEASE IN MAN

The prevalance of foot and mouth disease in the middle west (see editorial, this issue) gives special interest to cases of this ailment occurring in human beings. Through the newspapers we learn that one such case has already been reported in an Ohio town. Fortunately, it is unusual for human beings to be attacked with it. A case believed to be one of foot and mouth disease, occurring in a British soldier, 19 years of age, is described by Vernon Whitby, of the British Army, in *The British Medical Journal,* July 4, 1914 (p. 11). Lieutenant Whitby describes this case as follows:

"The patient was a soldier aged 19, who gave no history of any previous illness. At Kilworth Camp, on March 17, while carrying some boiling water, he fell and scalded his left wrist; later an open septic wound developed. On March 26—that is, nine days after receipt of the injury—he became aware of burning sensation in the mouth and on the hands, quickly followed by the formation of blisters. He was admitted to hospital on the same day. On the following day his face was flushed and rather congested, the temperature was 101 degrees, the pulse, 100, the lips were swollen, and there was a marked vesicular eruption, rapidly becoming pustular, all over the buccal mucous membrane. There was difficulty and pain on protrusion of the tongue, which was coated, and on which a few vesicles were seen. The breath was very fetid, salivation free, and the speech thick; the nasal and conjunctival mucous membranes were clear.

"There was a well-marked vesicular eruption on both forearms, wrists, and hands, extending between the fingers and to the sides of the nails; the palms were most

affected; the feet were also implicated, but not to such a marked degree. The eruption was primarily vesicular; the vesicles varied in size from that of a mustard seed to a sixpenny piece, were situated on a hyperemic base about one-eighth of an inch in width, showing no tendency to coalesce; they were larger on the forearm than elsewhere. They caused a burning sensation, and were tender on pressure; no itching. The bowels were constipated; otherwise there were no other gastrointestinal symptoms. The heart, lungs, and abdomen normal. All superficial reflexes were very brisk.

"During the next three days the rash became more pronounced; a few isolated vesicles appeared on the face, neck, abdomen, and thighs. The mouth was very sore, the vesicles having coalesced, ruptured, and given rise to shallow ulcers, with yellow sloughy bases, the mucous membrane of the lips had the appearance of one continuous yellow slough, the margins of the lips were crusty and dry; there was no excessive secretion of saliva. There was great difficulty in taking fluid nourishment, but no pain on swallowing. The vesicles on the extremities showed no tendency to pustulate, and there was no involvement of lymphatic glands. Serum from the vesicles revealed no organisms; a few polymorphs were found. There was no leucocytosis; eosinophilia was present to the extent of 10 per cent. The urine was high colored, acid, specific gravity 1027, cloud of albumin, no deposit, *nil* microscopically.

"The temperature, which had remained at 101 degrees, fell on the sixth day, to continue normal."

In this instance the disease was believed to be contracted from a stray collie dog.

INTESTINAL ANTISEFSIS WITH THE BACILLUS BULGARICUS

In discussing the use of biologic remedies in the treatment of intestinal toxemia, as advised by Metchnikoff, Bond Snow (*Medical Record*, Aug. 8, 1914, p. 233) praises highly the use of bacillus bulgaricus, which he declares has the following qualifications for use as an intestinal antiseptic: (1) It produces the greatest amount of lactic acid of any known lactic-acid-producing microorganism; (2) it is resistant to external influences so as not easily to be destroyed; (3) it readily withstands digestion and therefore passes the stomach unharmed; (4) it will implant itself and readily grow in the intestines, continuing there viable and reproducing itself several weeks after the last ingestion; (5) the bacillus bulgaricus is always nonpathogenic, causing neither general nor local injury to man at any age; the antagonism of the bacillus bulgaricus to all putrefactive indologenous microorganisms (which demand an alkaline or neutral medium for their development) is twofold: (a) it generates nascent lactic acid from sugars and carbohydrates, and (b) as Belonowsky of the Pasteur Institute so conclusively has proven, it also produces some form of an enzyme (the exact nature of which is yet to be determined) which also inhibits the growth and destroys the bacteria of putrefaction.

Doctor Snow properly emphasizes the importance of the use of cultures of the bacillus bulgaricus which are known to be pure, fresh, viable, and of high bacterial count. He declares that the persistent use of such cultures, taken before meals and at bedtime, when combined with proper diet, will accomplish more to overcome autointoxication than any line of treatment heretofore attempted, not even excepting the various surgical measures advocated by Arbuthnot Lane.

With Doctor Snow's conclusions we are in the main in complete accord, although we are convinced, by our own experience and by the reports of many practitioners, that best results can be obtained in the treatment of intestinal autointoxication through, first, primary "cleaning out" of the intestinal canal with proper laxatives, such as calomel and the daily morning dose of a laxative saline; thorough "cleaning up" with such intestinal antiseptics as the sulphocarbolates. After such preliminary treatment, the best possible results are obtained by the prolonged and thorough use of the bacillus bulgaricus, as advised by Doctor Snow.

THE TREATMENT OF HEMOPTYSIS

In recent numbers of CLINICAL MEDICINE we have had considerable to say about the use of emetine in the treatment of hemorrhage from the lungs. Results following the use of hypodermic injections of from 1-2 to 1 grain of the hydrochloride of this alkaloid have been so remarkable as sometimes to be properly called "miraculous."

However, the physician should not lose sight of other treatment. As N. B. Burns points out in *The Boston Medical and Surgical Journal,* September 17, 1914 (p. 437), there are four distinct indications when hemorrhage is present, these being: (1) absolute rest, the patient surrendering all effort to those in attendance; (2) immediate lowering of the blood pressure; (3) withdrawal of blood to other parts of the body than the lungs; and (4) the positive assurance to the patient that he is in no danger, in order to relieve the mental anxiety.

To accomplish the first indication, the patient is placed in a semirecumbent position, usually flat on his back, with a curved basin at the side of the face to receive the expectorate. At the same time, to meet indication No. 4, the physician quietly encourages the patient, telling him that very few patients ever die as a direct result of hemorrhage, and that he will suffer no serious consequences, provided he obeys instructions implicitly. This advice is based upon the experience at the North Reading (Mass.) State Sanatorium, in which only ten patients have died of hemorrhage since the institution was opened in 1909. In these ten cases death came so quickly that there was no time for treatment to have effect.

To lower the blood pressure, Dr. Burns advises the hypodermic administration of 1-100 grain nitroglycerin (glonoin). An ice pack is placed on the chest, and cracked ice is given by the mouth for a few minutes. He emphatically opposes the routine use of morphine in cases of hemoptysis. He believes that far better results are obtained by opening the intestinal tract freely with magnesium sulphate in full doses, providing of course there are no contraindications, such as extreme asthenia, enteritis, or ulceration of the bowel. No solid food is to be given for some hours after the initial attack, but cold milk, or cold bouillon, to be taken in small amount at regular intervals. A little lime water is added to the milk to increase its digestibility and add to the body's calcium content. The most popular foods with his patients are the cold bouillon, cold gruel, and malted milk. If cough is present and aggravating, it may be relieved with small doses of codeine or heroin.

To prevent recurrences of the hemorrhage, Doctor Burns advises the administration of sodium nitrite and calcium sulphide, 1 grain of each at three- or four-hour intervals, these drugs to be continued for 24 to 48 hours. Subsidence of the blood streaks in the expectorate, as well as the occurrence of severe headache, call for the discontinuance of the sodium nitrite.

The patient should be kept in bed for an entire week after the blood has completely disappeared from the sputum. Doctor Burns lays special emphasis upon the importance of constipation as a factor in hemorrhagic cases. Relief of this symptom shortens the hemorrhage. The persistence of constipation is not infrequently evidenced by pain in the chest, streaked sputum, and a general feeling of malaise. When these are present, resort to a laxative is desirable.

The advice given by Doctor Burns is certainly excellent and should be carefully considered by every physician called upon to treat a case of pulmonary hemorrhage. We advise, however, the conjoint use of injections of emetine hydrochloride in these cases. There is no contraindication to its use with the other remedies, medicinal and dietetic, advocated by Doctor Burns.

THE CAUSE AND CURE OF PYORRHEA ALVEOLARIS—MORE ABOUT BASS'S WORK

Last month, on page 1000 of this journal, we printed a portion of an editorial in *The New Orleans Medical and Surgical Journal,* in which reference was made to the work of Bass and Johns of the Tulane College of Medicine, in New Orleans. These investigators have verified the discoveries of Barrett and Smith of Philadelphia relative to the cause of pyorrhea and its cure. The complete article of Bass and Johns, with the discussion, is publishd in the November number of *The New Orleans Medical and Surgical Journal* (p. 455-456). These gentlemen have identified the organism found in pyorrhea as the *entamœba buccalis.* After a brief introduction, giving the history of this organism and describing the relation of amebæ to other diseases, the authors report the results of their own investigations, as follows:

"We have examined material from the lesions in 87 cases of pyorrhea, and have found amebæ in 85 of them. One of the negative reports was based upon a single slide, prepared at a distance from the laboratory, from the gum of a woman patient who was convalescing from plague. Pus could be squeezed from her gums, and the diagnosis of pyorrhea alveolaris seemed indicated.

It may be possible that other preparations from other teeth would have shown amebæ. The other negative case was that of a 13-year-old child with acute gingivitis, involving all the gums, of about eight days' duration. Thorough search failed to show amebæ, and we now believe this probably was not a case of pyorrhea alevolaris, or Riggs' disease.

"In addition to the 86 cases in which the disease was either diagnosed by dentists or was so advanced that no mistake could be made, we have made more than a hundred examinations from apparently normal gums and teeth, either in the mouths of patients who had the disease involving other teeth, or in people who appeared to have normal gum margins. We have not been able to find amebæ in a single such instance. We have, however, found them on several occasions in instances where the gum margin appeared inflamed and diseased, but the best that we could determine the disease did not extend to the alveolar margin. Such cases, perhaps, could not be called pyorrhea alveolaris, but they are probably the beginning of the disease. In several instances we have found amebæ in similarly mildly inflamed and 'easy to bleed' gum margins of one or more teeth in patients who had well-advanced Riggs' disease around other teeth. We have found amebæ around teeth in what we have considered to be all the different stages of the disease in the same case, from the slight redness at the gum margin and tendency to bleed easily to the tooth hanging loose in its socket or standing, entirely stripped of gum, on the exposed carious bone.

"The technic of examining for the amebæ is very simple. Remember that they are most numerous in the bottom of the lesion. A little material is removed with a suitable instrument (a good toothpick serves the purpose well), diluted on a slide with a little salt solution, saliva (patient's) or water. A cover glass is placed on the diluted material, which should be examined promptly with the high dry lens of the ordinary microscope. By careful search amebæ are found, showing the characteristic ameboid motion. We are not prepared at this time to say whether there is more than one species to be found. The amebae we have seen vary in size from about that of a leucocyte to about three or four times this size. No contractile vacuole is recognized, but nutritive particles, more refractile and more prominent in appearance, are observed. The ectosarc is quite clear and is well differentiated from the endosarc.

"These amebæ are easily demonstrated in stained specimens. A good method is to make a thin spread of the scrapings and pus from the bottom of the lesion on a slide, allow it to air dry, fix with heat and stain with carbol-fuchsin about one-fourth minute, wash, stain with Loeffler's methylene blue about one-half minute, wash, dry, and examine. The amebæ are well stained by this method, and show their inclusions of tissue or cell remains, indicating pathogenicity. We have been unable to demonstrate that these amebæ take up bacteria, though they sometimes appear to do so.

"Ipecac has been employed with success in the treatment of amebic dysentery for many years, but on account of its nauseating effect and sometimes impossibility for patients to retain it in sufficiently large doses, there has been more or less dissatisfaction in its use. Vedder found that fluid extract of ipecac was destructive to cultural amebæ in solutions of 1 to 200,000. Rogers experimented with the active principle of ipecac, emetine, and found that it would kill entamebæ in stools in solutions of 1 to 100,000, and in 1912 began using it hypodermically in the treatment of amebic dysentery. It is now very generally employed in this manner for this purpose, and with fairly uniform results. The action of emetine in amebic dysentery is very prompt, striking, and specific. Usually the entameba cannot be found in the discharges after twenty-four to forty-eight hours of treatment, and the bloody mucous stools give place to normal, formed stools in three or four days. There is considerable tendency to relapse after the treatment has been discontinued for a time, but no doubt a considerable number of 'relapses' are, in fact, reinfections.

"We have not tried the injection of solutions of emetine into the gum and pus pockets, as Barrett and Smith did, because it has not seemed to us reasonably probable that all the diseased tissues could be reached in this way. Whenever a patient has advanced Riggs' disease in one or more teeth, the disease also exists around and between many of the other teeth. The interdental tissue is often soft, spongy, and bleeds readily. Often simply sucking the teeth causes bleeding. Careful examination reveals active motile amebæ present.

"The results of our experiments, so far, are most gratifying. We have had 68 cases

under observation and treatment from two days to two weeks. The doses of emetine experimented with have been from one-half to one grain. Only one dose was given in a day. Several cases have been given a dose daily for several days. Others were given one or more doses until the amebæ disappeared, after which an interval was allowed to determine how long it would be before they would return, or what other results could be observed. In several instances no amebæ could be found the next day after the first dose was given. In a few, however, they were found the next day after emetine had been given on two successive days. In no case have we been able to find amebæ the next day after emetine had been given on three successive days.

"As to the duration of the absence of demonstrable amebæ following the three (or less) doses of emetine, our studies have not been conducted long enough to determine. In one instance we found amebæ on the fourth day after the last emetine had been given. In another instance we found them on the sixth day. In several instances none could be found after seven days or longer intermission of treatment. On account of the wide distribution of this ameba in nature and the character of the lesions of the disease, we do not think it very likely that bad cases of pyorrhea alveolaris will be permanently disinfected by a few doses of emetine given during a few days. The chances of reinfection are so great and the damaged gum, alveolar and tooth structure offer such favorable soil, that it must surely be necessary to continue the specific treatment until Nature has had time to fully heal the disease.

"The length of time necessary for this will no doubt depend upon many factors. Healing and repair of diseased bone is always slow. Whenever the disease involves only the gum, and has not reached the bone (alveolar structure), it is our impression from observances so far made, that probably the length of time necessary for the gum to heal will not exceed a week. We have observed great change in forty-eight hours, and gums that bleed easily often become perfectly normal in this regard in from twenty-four to seventy-two hours. The results are so striking that there is no doubt in the mind of the doctor or the patient.

"Our experiments have not advanced sufficiently to enable us to lay down dogmatic rules as to the treatment, but we are certain that rapid and favorable results may be expected to follow the administration of 1-2 grain of emetine hydrochloride hypodermatically (in any part of the body) daily for three or four days. In all except the early, mild cases it may be necessary to repeat the treatment, during one or more days, after an interval of three to ten days. In the worst cases no doubt it will be found necessary to reepat the treatment several times before the disease is entirely well. No doubt removal of tartar, scales and other local dental treatment should also be done at the same time.

"It is quite likely that the injection of a weak solution of emetine, one-half per cent, as used by Barrett, into such lesions as can be reached by it, will be found to favor success from the hypodermic treatment with emetine."

THIOSINAMIN USEFUL IN PYLORIC STRICTURE

"In recent years," says Albert Bernheim in *The Inter-State Medical Journal* (Sept., 1914, p. 1027), "It has become almost an axiom that obstructions of the pylorus and duodenum must come under the surgical knife." That surgical intervention is not invariably necessary when the obstruction is of a benign character, is the text for Doctor Bernheim's remarks. He has secured particularly good results in a number of cases by the use of thiosinamine, which may be administered subcutaneously in any part of the body found most convenient. It is not necessary for the patient to be confined to his bed or give up his or her occupation.

He gives the history of four cases of benign pyloric or duodenal obstruction in which this remedy was used with good results. Apparently 1-2 grain was administered at each sitting, and the injections were usually repeated every two or three days. They cause some pain, and this may last for two or three hours. In every one of the cases reported there was symptomatic cure, with digestive improvement and gain of weight.

The power of thiosinamin to remove scar tissue is so marked that we wonder more physicians do not give it a trial. It has even been used with alleged success in treating stenosis of the cardiac valves. We should like to hear from readers of CLINICAL MEDICINE who have employed it for any purpose.

Miscellaneous Articles

Dispensing Versus Prescribing

THE first prescription I can find any record of was given in the Garden of Eden. People were subject to diseases in those days, the same as now, and were cranky and grouchy, just the same as we occasionally are in this civilized (barbarous) age, and made mistakes just the same.

After a strenuous day's work Adam came home very tired. Eve had done her week's washing, dressed and cared for the children, and was cross and peevish. After all that, the evening meal was prepared for the Lord of the Garden. Adam ate heartily and in the night was taken with pains and cramps in the northeast corner of the abdomen. A physician was called. After duly looking the case over, the doctor, being a close observer of man, noticed that there was a strained relation subsisting between Adam and Eve. So he wrote the following prescription:

Love-apple seeds.....no. 20
Seeds of the poppy.....grs. 5
Make an infusion with spring water..... q. s.

Sig: Take 2 ounces hot, for both, until pleasant relations are established in the household and Adam is free from pain.

The prescription was sent to the leading druggist, a. R. P. with a state license. When the apothecary was asked whether he could fill it or not, he said: "Yes, certainly. Do you not see the R. P. after my name? I have the drugs, all perfectly pure and reliable. Please take a seat; ready for you in a very few minutes. Here's the national druggist's paper. You see my name is at the head of the contributors' column."

In due course of time the medicine was compounded, taken home, and finally it was administered to the patient as directed.

After three or four doses had been taken Adam became much worse, cross and faultfinding, and poor Eve became hysterical, disheartened, and fell to nagging; but she, like a good nurse and wife, continued to give and take the medicine until morning. Doctor was again called, made a careful examination of the medicine and concluded there had been a mistake made. So he had the decoction analyzed by the best chemist that resided in the Garden. The report from said chemist was this: The prescription reads:

Discord-apple seeds.....no. 20
Podophyllum.....grs. 10
Make an infusion.

The ultimate results: Discord in the world has been rampant ever since. Men quarreling with their wives, and wives nagging their husbands; and a continual dissension has ever existed as to which is to rule. Nation has contended against nation, and will so continue until all men come under the control of the Great Physician and take and use his prescriptions. Please note that it was all the fault of the R. P., i. e., the compounding druggist!

If the physician in this case had been in the habit of carrying and dispensing his own drugs, he would have had apple seeds, duly labeled, and prepared the medicine under his own observation. Result: the whole world would be at peace and living in harmony and friendship!

Dispense medicine? Why not? It has been done from time beyond date, and I can see no reason why it should not continue *ad infinitum*. If you will take note, the death rate is just about the same as it has been since nations began to note the death rate of its people.

Be sure you know what you are giving. At the present time there are so many reputable manufacturers of drugs, tablets, and tinctures, there is no trouble in getting pure, unadulterated drugs. We must have confidence in the manufacturer. No reputable manufacturing house can afford to permit material to pass out of its house that is below standard in purity.

Because physicians do not always get the results desired and expected from medicine given or prescribed, it does not indicate that the drugs used are not pure. Absorption cannot always be obtained when giving medicine by mouth. The stomach has a laboratory of its own, which in its compounding may completely change the character of the mixture or make it completely inert. At different times, medicines do not always produce the same results, and the action varies in different individuals. If it were not so, we would not have to treat patients empirically.

You must have confidence in the source from which you procure your material. Have you perfect confidence in the average druggist? Druggists' journals have made the assertion that the pharmaceutical manufacturers of tablets and tinctures use old and inert crude drugs. As the apothecaries and manufacturers obtain the crude material from the same sources, by what right can the one call the other dishonest?

The doctor is as clever and clean in handling medicine as is the apothecary. Examine and see. Doctors are poor penmen. That is proverbial. They write prescriptions mostly in hieroglyphics, and only the ablest experts can decipher their scrawls, and what they cannot correctly make out they guess at. There is no valid excuse for such penmanship. If physicians made it a practice to dispense their own drugs, there would be much less blundering. I give here some of my personal experiences with druggists.

A patient of mine went to a drugstore to call me by 'phone. My office was five or six miles from the place. The druggist remarked to this gentleman: "Why send so far for a doctor when there are three or four right in this building?"

Answer: "Because we know him, and he is well acquainted in our family, and if he is on earth we want him."

Now, do you think I should be very anxious to send my prescriptions to that druggist? What business was it of his as to how far away the physician was? He was "barking" for doctors who officed on the floor above his store.

Another case: I had occasion to prescribe for a patient, and wrote a prescription which was taken to a drugstore near to the residence of the patient. The druggist looked over the prescription and grunted: "Ahem! pretty strong medicine, sure of your doctor? Hum, hum."

This gentleman replied: "He has been our family physician for ten or more years, and *we are all living.*" Then he asked to see the prescription, pocketed it, and went to another druggist, who put it up without comment. Result: Two months after that, one of the family had a run of typhoid fever. All physicians know about the time required to get through a severe case of that fever. Well, I handled the case, using medicine in the form of tablets and granules, and at the end of four weeks discharged the patient in a fine convalescing condition and he was soon back to his daily vocation, well and sound.

What did the druggist lose by trying to frighten my patient so that he would employ a physician with office over his drugstore? Also, how much did the patient save in money through the tablet treatment? The patient's stomach received the minimum amount of medicine required, and no nasty, nauseating decoctions likely to upset the stomach were given, and there was no occasion for the patient to say: "I would rather die than be obliged to continue taking such vile stuff."

Still another case: I wrote two prescriptions for a child. The first was: Tinct. ferri chlor. Directions: Five drops in water every four hours. The second contained, tincture aconite, tincture gelsemium, spirit nitrous ether, and water. Directions: Teaspoonful every two hours.

The druggist put the label for the iron drops on the bottle for the fever compound, and the label for the fever medicine on the iron bottle. Imagine the excitement after the first dose of the iron was taken. Child screaming, household in consternation and a hurried call for the doctor. The iron was given *undiluted.*

Another case. I was huriedly called to see a patient, in the night, suffering from a scalded mouth from just another such blunder. Two prescriptions had been given the patient, put up in 1-ounce bottles, one for strong ammonia water, the other for a fever mixture; bottles same size, color the same, but directions different. Direction for fever mixture: Teaspoonful every two hours; for the ammonia, a few drops in water for local application. Attendant gave patient a teaspoonful of the ammonia as directed. Result: mucous membrane of mouth and throat badly burned, and a

change of doctor and druggist. That was supposed to be a *careful* druggist!

Again. A patient was given a prescription containing calomel to be put up in capsules. After the patient had taken all the capsules, he felt so much better that he had the prescription renewed, without the consent of the prescribing physician. By the time the last of the second batch had been taken there was a most beautiful case of salivation, with softened gums and loosened teeth. Who was to blame?

Why should an apothecary repeat such a prescription of medicine without the consent of the prescribing physician, and why not give caution as to its effect unless due care was exercised by the patient? If a physician had personally given tablets to this patient, such an accident could not have happened, because the patient would have had to return to the doctor for more medicine.

I was called to see a child six or eight months old. Had "summer complaint." The parents could not awaken the child. Question: "What have you given this child?" A bottle was produced.

"How much have you given?"

"Only a few drops," was the reply.

Examination showed that at least an ounce of the mixture had been given. Label on bottle: "Mrs. Winslow's soothing sirup." Surely, it did soothe in this case, for in a few minutes the little spirit had taken itself to the baby's heaven.

Nearly all the nostrums for "summer complaints" and "coughs," on the market, contain opium in some form. The promiscuous and continued use of such drugs frequently leads to the opium-habit. Why is it permitted? If the medicine were given in tablet form and given by the doctor, such habits could not be formed, for to get more of the remedy the patient would have to return to the prescribing physician.

A physician writes a prescription for a cough, one containing paregoric, or heroin, or codeine, or some other opiate. It is compounded by some reputable druggist, and is taken by the patient with apparently good effect. Then the prescription is refilled an innumerable number of times and is used by all the neighbors who are in like manner afflicted. Someone out of that number gets the opium habit. They find out that the opiate is what gives them the relief, so they reason, "If that is the case, I will get the clear quill." Soon the habit is fastened on them and only death can cure. Now, who is to blame? Don't be too ready to put it on the doctor, for he only prescribed it once.

Children are very susceptible to the effects of opium and its alkaloids, *and a prescription containing any of these ingredients should never be refilled without the written consent of a physician.*

Another case: A doctor wrote a prescription containing oleum tiglii for a case of obstinate constipation. A partial effect was obtained, so the party had the prescription refilled without advice. The patient was a feeble young lady. Result, a violent dysentery was induced, and death came to rescue the patient from the agony induced by the drug. Who was to blame?

Doses have decreased in size wonderfully in the last fifty years. Extracts and alkaloids have taken the place of the crude drug. Formerly we gave a tablespoonful of powdered Peruvian bark in a little water, now we get the same effect from a grain of quinine; and the same betterment is seen all the way down the line.

As to the expense of the written prescription put up by a reputable druggist and the same drugs given out by the physician, it is at least 50 percent in favor of the latter. The drug bill in the case of a long run of typhoid fever or inflammatory rheumatism, where prescriptions are written, is a big item to the patient. The same drugs can be given at one-half the cost when put up in convenient tablet form. Where prescriptions are compounded and furnished by the druggist, in a long run of a disease, all the funds of the household have been consumed by the drugstore and none left for the doctor.

The physician should be so much interested in the welfare of his clientele that he will make their expenses as light as possible. And right here let me say that nurses are often an expensive luxury. Most of them practice no economy when attending a patient, since the expense does not fall on them. I have been a close observer, and I put the blame on the hospitals, as I believe no instructions are given the nurses, when they are in the hospital, as to practicing economy in the households of their subsequent employers.

Thanks should be given the homeopaths for teaching us to use concentrated drugs and for making them tasteless so far as possible. Chemistry has also come to our

relief, giving us the active principles of drugs. We need administer but little medicine to our patients and we should be explicit in our instructions in dietetics and correct living, and in explaining the relation of moral character to good health. With a few good drugs and an abundance of good horse sense, a broad education, and a sound body, any physician will be able to practice the healing art successfully.

Self-seeking druggists and boasting physicians, like crowing hens, prematurely come to some bad end. It will be a sorry day for the poor when the druggists get the legislature to prohibit physicians from dispensing medicine at the bedside or in the office.

JAMES E. STUBBS.

Chicago, Ill.

[Whether you agree with Doctor Stubbs' ideas or not, I am sure you will be interested in what he has to say. As we have so often stated, whether a doctor prescribes or dispenses his own remedies is something for him to decide for himself. No one can do it for him. We firmly believe that environment, competition, local, economic and social conditions, and many other things should be taken into consideration in making the decision. However—if you have a good druggist, one who serves your interests and does his work well, I certainly should not advise you to break away from him. Just to the extent that the pharmacist cooperates with you in your work has he a right to expect support from you.—ED.]

PNEUMONIA AND TAPEWORM

So far as I am aware, tapeworms have never been mentioned as a complication of pneumonia, so, I list this case for reference. The patient, a man aged 42, had lobar pneumonia and also tapeworm; he was getting progressively worse, and on the third day was very seriously ill.

Male fern was administered, followed by epsom salt, and this by hypodermic supportive treatment. Six hours later, there passed 25 feet of tapeworm, but without the head. The patient made a prompt, rapid, and uneventful recovery. Four months later the worm was removed, head and all, by means of larger dosage with the male fern.

The point is this: by the removal of most of the worm, a pneumonia-case that looked hopeless was relieved of the parasitic toxemia sufficiently to enable the system to combat successfully the pneumonic attack. This case had worried me, as otherwise I have had but little trouble with my pneumonia patients.

A. H. BEEBE.

Stillman Valley, Ill.

A LETTER FROM PROFESSOR LLOYD

In the August number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE we published a short article written by Dr. E. P. Zeumer, of Harrison, Ohio, in which complimentary reference was made to some of the remedies manufactured by Lloyd Brothers, of Cincinnati, Ohio. In commenting upon this article, we were glad to endorse what Doctor Zeumer had to say regarding the quality of Lloyd's fine line of specific medicines, whose merit is appreciated most by those who have used them most.

This article came to the attention of our good friend, Prof. John Uri Lloyd, who immediately indited to Dr. Abbott the letter which follows, and which it gives us great pleasure to reproduce—special pleasure because it strikes the new note in modern commercial life—the note of generous recognition of the worthy efforts of a competitor. This "new competition," expressed so admirably by Professor Lloyd, is taking the bitterness out of the battle for business and is replacing it with the spirit of the Golden Rule. The letter follows:

My Dear Dr. Abbott:—I write you personally, because in the past we have had so much correspondence as to lead me to make this a personal matter, rather than that you should receive a bare recognition, in a business way, of the article in the August number of CLINICAL MEDICINE, entitled "Ipecac and Solanum." Let me assure you that I have read this with much interest, and appreciate much the hospitable manner in which you use the name of our establishment and of the preparations emanating therefrom, in a field in which you also are concerned.

The world is big enough for us all to live together in hospitality; and to "live and let live" is the altruistic ideal of life. The big opportunities in business are not those of the military man, but rather those of the cosmopolitan who feels that all laborers in the field are benefiting humanity, and therefore all of us have a common cause.

I sometimes wonder, as I observe a softening influence here and there and a grad-

ual introduction of humanity into business in place of the destructive methods so long in vogue, whether I may not hope to live long enough to see business establishments no longer antagonistic camps for the destruction of one another, but rather all striving together in a cause in which, in somewhat different lines, all are contributing to the benefit of humanity.

My personal experience has been along strenuous lines, and as I look upon the matter, I feel that much bitterness has needlessly been exhibited by parties who have gone out of their way to use heavy artillery, designed for the destruction of the home of a friend, which, if destroyed, would only prevent the destroyer from profiting much in the future.

For example, had the antagonists of the Eclectics been able to crush the efforts of that school, years ago, the task of some of the new leaders of the old school, who are now seeking to teach their followers that shotgun practice is a relic of medieval inexactness, would be very much more difficult than it now is. Having foreseen the coming of new conditions, and in the face of continual resistance, the Eclectics have long advocated the specific use of remedies in connection with special study of disease expressions.

You may think that all this is far from the text that has led me to write you personally, but in my opinion it is not. The field of opportunity in this direction is illimitable. I have made a lifetime study of the American materia medica, into which study a few remedial agents from foreign countries have been admitted. Yet I feel I have scarcely touched the problem, and surely have not reached into many lines that radiate from the circumscribed opportunity presented to me. Therefore, it has not been with a reluctant view that I have seen different manufacturing pharmacists enter the field in allied lines, as is the case with your establishment. As you fully comprehend, I have viewed all such efforts as a service to humanity.

Rest assured, therefore, that I shall see to it that due recognition is made of such a friendly holding out of the hand as you have shown in the August number of CLINICAL MEDICINE. I shall do this in such a way as to serve the interests of my friends in the medical profession. My ambition is not commercialism, as voiced in the methods of aggressive business, and I believe that the opportunity you have given me by this article will perhaps serve to soften the military methods of others.

Please excuse this long letter, which is not the first tiresome communication I have written you, and permit me again to express my satisfaction over the text you have given in your very fraternal presentation of the contribution of Dr. Zeumer, and in your personal note, added thereto.

Sincerely yours,

JOHN URI LLOYD.

Cincinnati, Ohio.

[Generous, broad-minded, far-seeing cooperation is what we need in all the relations of life—in business as well as in our professions. Professor Lloyd admirably expresses that need. CLINICAL MEDICINE is not only willing but anxious to promote such a friendlier relationship. The best interests of all would be conserved and promoted if the absurd jealousies of business and professional life could be eliminated altogether, all of us working together for the common good. Can we not all, every doctor as well as every business man, strive to bring about that end?—ED.]

ELECTROLYSIS AS A CURE OF PARALYSIS

About fifteen months ago, circumstances led me to investigation and the devotion of much thought concerning the cure of paralysis accompanying and following anterior poliomyelitis, and it occurred to me that electrolysis might, in some cases at least, solve the problem.

Because I believe we are a long way from the last word either on the facts of electrolysis or on the pathology of the condition in question, I will make no attempt to discuss these. Suffice it to say that the two cases in which I had an opportunity to use electricity for its electrolytic effect convinced me that the procedure in these instances was direct, prompt, and of enormous benefit. This view is enthusiastically endorsed by the young man of nineteen years who had been subject to the condition for two years before I resorted to electrolysis, as well as by the parents of a boy of twelve who was becoming more and more incapacitated from paralysis following an attack of anterior poliomyelitis three years before.

My experience has been confined to these two cases, because the few cases I had under my control during the small epidemic (or endemic) of three years ago recovered completely under the prompt and very free administration of formalin; and the extreme difficulty of getting the ordinary layman to realize that, notwithstanding the failure of electricity in the induced current, success might follow the use of the constant current.

The latter current was used, of course. The positive electrode was 6 in. by 9 in., applied over the abdominal wall; the negative electrode was 2 in. by 2 in., applied to

the spine. The sitting lasted from ten to fifteen minutes, during which time the positive electrode was not moved, but the negative electrode was being moved for half the time over the upper (cervical) and half the time over the lower (lumbar) enlargements of the chord.

Soapy water was used to moisten the electrodes.

Not more than 5 milliamperes were used at any time, and if that strength was unpleasant the current was reduced. The treatments were given twice a week.

Notwithstanding the obscure source of the suggestion, the procedure is so harmless and simple that any physician can give it a trial, and I hope many will do so, until it shall be shown that it is either a true advance in the therapeutics of the condition or—otherwise.

G. M. AYLESWORTH.

Collingwood, Canada.

AN AMERICAN FUND FOR BELGIAN PHYSICIANS

Dr. H. Edwin Lewis of *American Medicine* has made an appeal for funds for the relief of our professional colleagues in afflicted Belgium. We cannot better state the conditions leading up to this appeal, nor better express the purposes of Doctor Lewis and his colleagues, than by reproducing the following paragraphs from the published statement:

"While the condition of the Belgian people is rapidly becoming critical with famine and cold confronting them, it should not be forgotten that the physicians of this stricken land—and their families—are likewise in direst need; the holocaust that has swept their country has also left them destitute—their homes, equipment, libraries, everything in fact, has been destroyed and lost. Hunger, cold and the most abject misery are all that they can expect unless those of us in happier circumstances take steps to relieve their condition—not next week, not tomorrow, but *now, today!!*

Reluctant as we have been to make any move in this direction, for fear our purpose would be misinterpreted and misunderstood, it seems absolutely necessary that something should be done, if for no other reason than, to draw attention to a class of men who are apt to be overlooked because of their activity for others. Therefore, hopeful that no one will place a wrong interpretation on the movement, or be so unkind as to think it possible for this or any other journal to seek any publicity from a condition too poignant with human misery, we have yielded to the requests of many interested friends and will straightway undertake the collection of an American Fund for Belgian Physicians."

The work of collecting this fund is directly under the charge of Doctor Lewis and *American Medicine*, but about forty physicians representing all sections in the United States are cooperating with Doctor Lewis in the effort to make it a success. A member of the editorial staff of CLINICAL MEDICINE has been honored by being placed upon this committee. It gives us great pleasure to endorse the movement, which we trust will find quick response in the hearts of every one of the readers of this journal.

There are thousands of our medical friends who should contribute. Even if their gifts are small—one dollar, fifty cents, twenty-five cents—they will be appreciated. However small, they will help to swell the sum which in the aggregate we hope may be large. Let us American physicians, let every physician whose heart beats in sympathy with Belgium's noble, uncomplaining, hard-working doctors, rally to their assistance in this time of sorrow and destitution.

Remittances should be sent direct to Dr. H. Edwin Lewis, 18 East 41st St., New York City.

A LETTER FROM THE FIRING LINE IN FRANCE

Years ago, I was intensely interested in the story of an American surgeon, concerning his battlefield experiences in the Civil War. When I entered upon active service here, in the present gigantic struggle, I thought something similar would take place. To my surprise, everything seems new. I have been a field-surgeon for two months and have kept on what is called the front, and, yet, I have never seen a clash between opposing forces.

I have heard of bayonet charges and have been told that miles away the forces were in close contact; but, beyond the roar of guns, the smoke at times and occasionally a shell bursting near me, I have no conception of what a real battle means.

At present, three of us field-surgeons are on a line nearly five miles long. We are

supposed to do the work, calling for immediate aid on the field, that comes to us, and to direct where the wounded shall be sent. When we perform any major operations, such as tying the arteries or closing ghastly wounds we put our card, showing the time of day, on the body of the patient, and the surgeon in the rear knows who has done the work he is called to attend to.

There is a degree of uncertainty that prevents us from having any kind of rest or even sound sleep. We take our turns for thirty-six or forty-eight hours and then go back to the main hospital for an equal rest. During our field service we must sleep and eat under the best circumstances possible, but be ready at any moment to attend the calls, sometimes half a mile away. At all events, we go where we are sent. Occasionally a supervising surgeon comes along and collects whatever data we may have gathered, particularly concerning the dead and wounded, of which we are supposed to keep a copy. Occasionally a high officer will make an inspection of the grounds. Also, once in a while, a battery will go by, or a group of men or ammunition or commissary wagons, but beyond that we are in a kind of neutral zone, in which we see very little. However, we are very likely to find ourselves in a region where shells are falling thickly, with an inspiring prospect of getting very badly hurt.

After a day of very hard work, I found a shed on the edge of the woods that seemed to promise a sleeping-place for the night. Soon after dark, shells began falling all around, and I had to retreat, having several narrow escapes. Afterward I was told that an aeroplane probably had marked out this location as a place where batteries and troops were resting for the night, and this information having been conveyed to a battery four or five miles away, the latter commenced a vigorous shelling of this particular point. In reality, it was only a tired group of stretcher-bearers and red-cross nurses who sought repose at this point.

Recently we were hurried to a valley on the other side of which a charge was made by some of the Bengal troops. Two of us were soon on duty, and for several hours groups of wounded men came over the hill from the front for attention and service. Some East India troops craved the privilege of charging a line of breastworks with bayonets. They were not seen until they reached the trenches, and then a fearful conflict took place that lasted ten or fifteen minutes, in which a large number of soldiers were killed, while others ran away, leaving the trenches deserted. The troops could not hold them, for in a very short time a furious cannonading started in all along the line, and the Bengal troops had to retreat at once. Of course the trenches were reoccupied by the Germans in the course of an hour or two, and this bayonet charge was simply a clash, without any positive gain.

Nearly all the wounded suffered from stab wounds, or had broken arms and legs. The stories they told of the mortality of the Germans were very gruesome. A few stretcher-bearers went over the line to bring in the wounded Bengal men and to take note of the others that were killed. Knowing that the position would be retaken, they left all the wounded Germans.

It is a matter of surprise that so few are being killed. While the cannonading is very severe and the schrapnel shells are very violent in their explosions, only a few persons are killed instantly. The men on the front soon learn to scatter, and one rarely sees any large group of men at any one place, but it is understood that, if a charge is threatened, a large body of men can be concentrated to meet them in a very short time.

The hospital work in the rear is very methodical, and one is impressed with the excellent care and facilities for placing the patients in the best possible conditions. There is a kitchen for broths and food extracts, and the dangerously wounded are housed close by, under the best circumstances. Tents are used to a large extent, although barns and sheds in villages are utilized wherever they are available.

The effort seems to be to get the wounded to the rear, away from sight, as quickly as possible. Men who can walk and men who cannot are hurried along with motors, out of the sight and sound, as soon as possible.

One often is surprised to observe how quickly men in the trenches know how to give the first aid to wounds and injuries, having little kits of lint and adhesive straps, and being taught what to do just there and then; later, when time permits, they are directed back to the rear.

Comrades are not allowed to leave the ranks to help each other, excepting in a limited degree, but there are always strag-

glers, red-cross nurses and stretcher-bearers available; and along with these is the field-surgeon, and often he has no occasion to add to the treatment which the soldier has received in the trenches from his comrades or by himself. He simply directs him how to go to the most available place or possibly may readjust the early treatment he has received. In my observation, the machine-guns are not used very often, and then in the most unexpected ways. In the beginning of the war, masked men rushed upon these machine-guns, both in the front and on the side, to capture them, but this was found so destructive that both sides have learned caution, and whenever a machine-gun opens, the men scatter or fall down on the ground.

Sharpshooters at different points are very troublesome, but their work is of short duration. Guns that will carry nearly one mile are in use on both sides; but, if they become particularly troublesome and are traceable to any one point, a few shells quickly break up the combination.

The Germans taken prisoners in my observation are depressed and deplore the war seriously, and seem glad to be out of the center of conflict. I have seen some old men and some very young men. Evidently there is a great disparity in the ages of the soldiers opposed to us. One has a very limited conception of events, except right in their immediate notice. So far the amount of sickness is very small.

The English troops are very cheerful, and are buoyant and eager in their desire to take a very active part. When the weather is bad, there is gloom and depression, but, otherwise, there is a general feeling of unusual confidence. Each wounded soldier is impressed with the necessity of saying very little and of avoiding any kind of comment on what he has seen and on the war in general.

The rations generally are good. The water and sleeping-quarters are the most irregular. Great care is being taken to keep the water from being polluted, and about the hospitals only sterilized water is used. So far as I have observed, the wounded men do very well with water and antiseptic dressings, and there is little or no tetanus or any symptoms of malaria or fevers. I see wounded men for only a few moments, and then they go back to the rear.

They are generally well nourished and rather gloat over the fact that they have been sacrificed for their country. There are some American surgeons in the rear hospitals who are doing operative work, and there are some in the field service.

All of us are looking forward to a cessation, and when a rush-call comes to go here and there, we inwardly hope that it may be the last one. Papers that we read give no more information than what probably you get also; and we are as eager to hear what is going on, beyond our immedite circle, as are our friends at home.

Wherever we have been, the natives seem very friendly toward us and anxious to have us help them all we can. They are practically ruined. Their fields and homes are destroyed if in the zone of active operation, and many of them appeal to the soldiers for food, which the latter very willingly share with them.

A great many officers and surgeons are keeping very minute diaries, with sketches of the country and the location of different troupes, but they are pledged to keep these secret until the war is over.

I have not seen much of the French army, but the men seem smaller than the English troops, but more active. The Frenchmen have been near us several times, and they seem to be able to charge both with infantry and with battery on very short notice, and to fall back equally as rapidly. The English and the India troops move slower, but they soon find that it is very difficult to go about with military precision, especially when in the firing-zone. They straggle and move around irregularly, but there is a kind of precision in their movements, that shows that somebody is directing them.

At a ford on a river, I saw a large body of men massed, to prevent the Germans from crossing. There was a heavy artillery fire for an hour or so, and a dense smoke and fog, and afterward we were told that a sharp encounter had taken place and the Germans were driven back. We took care of a large number of wounded, half a mile or more, and for a time the shells fell all about us, so that we had to move in another direction.

Every now and then an aeroplane comes whistling overhead, and when we find that it belongs to the enemy every sharpshooter takes a chance, but usually the distance is so great and the machine moves with such

rapidity that it is impossible to tell whether they are hit or not.

Most of the roads are very well adapted for motors, and great trucks loaded with men and provisions are incessantly moving up and down. Some of them go with great speed, and occasionally someone falls off or is runover, so that our services have to be called for.

In this chatty letter, I can write only of the things that I see. Of course, among the men and officers, there is a great deal of gossip and intense anxiety to know what is going on, and also to hear from home, but all our letters are censored and if we commence to tell how many are wounded or how many we have seen killed this is suppressed.

The impression prevails among the men that a winter's campaign is before us and the stock of blankets and heavy clothes that are coming in indicate that we are likely to stay in this region for some time to come. So far, it would seem that the fighting on this line is confined largely to the artillery, while the infantry is kept only in service to protect the guns and batteries from being taken.

Picket duty is about the most dangerous of the work we have seen so far, especially at night, but experience makes men very alert, and not withstanding the darkness and fog, they are able to determine a great many facts about the movements of the enemy.

The pickets are previously informed as far as possible concerning the batteries and trenches of the Germans in front of them. The air-men gather this information in the afternoon, and they reason from the activity displayed whether there will be any clash in the night or not. On several occasions, the field surgeons have been ordered to certain sections of the line for the night, with the expectation, no doubt, that there would be work there. On one or two occasions this was verified, but the affair was over in a very few minutes, and, although the wounded who were brought in were numerous, we could form no idea of the number of dead.

Each surgeon is supposed to make a note of the name and rank of anyone who is found dead, especially of the allies. This information frequently comes from the soldiers, and cannot be verified, without great danger to the surgeons.

[This letter is written by a British army surgeon serving at the front, and was sent us by Dr. T. D. Crothers, of Hartford, Conn., to whom it was written. Another letter next month.—ED.]

NINETY-THREE PERSONS INFECTED BY A TYPHOID CARRIER

A remarkable outbreak of typhoid fever occurred in the city of Hanford, California, in March, 1914. This epidemic was investigated by W. A. Sawyer, of the Hygienic Laboratory of the California State Board of Health, who reports his findings in a paper published in *The Journal of the American Medical Association* (Oct. 31, 1914, p. 1537). During this epidemic 93 cases of the disease occurred, 45 of these being definitely proven by a Widal reaction, 23 others giving partial Widal reactions and the characteristic symptoms of the disease; 7 presenting no Widal reaction but giving typical symptoms; 9 apparently being typhoid fever but diagnosis not verified by the Widal test; while 9 were doubtful, yet apparently very mild cases of typhoid fever.

Upon investigation it was found that 85 of the people attacked had partaken of a public dinner and supper given by one of the local churches in a public hall on March 17. The 8 others reported had eaten of the food served at the dinner, which was brought them by friends. This dinner was partaken of by 150 people, 125 eating at noon and 45 in the evening—some of these partaking of both meals.

A careful investigation of the source of infection was made by Doctor Sawyer, and after much painstaking study, both by himself and the state laboratory, the origin of the disease was definitely traced to one woman, who is called Mrs. X. This woman was 63 years of age and had no knowledge of ever having had typhoid fever. However, the disease had been present in her household 35 years before, when a daughter had passed through an attack, and it was suggested that she may have received her infection at that time. Formerly Mrs. X. kept a boarding house in Hanford, and during the last eight years four of her boarders had suffered from typhoid fever, two of them in March, 1912. An examination of Mrs. X's feces revealed the presence of virulent typhoid bacilli, all giving complete agglutination, the agglutinability showing little

change between the third, fifth and eighteenth generations.

Investigation showed that Mrs. X came into contact with only one of the various dishes served at dinner. While she helped in cutting the bread and waiting on table, and otherwise to a slight degree, it was believed that the real source of infection was with a dish of Spanish spaghetti which she prepared at home up to the point of final baking. Inasmuch as she had nothing to do with the baking process, at first thought it would seem unlikely that this dish could be infected. However, experiments made in the state laboratory showed clearly that spaghetti made in the manner employed by Mrs. X. (chine-grit) sterilized by the baking process. Cultures taken at the surface of the dish soon after the pan was removed from the oven showed no typhoid bacilli, but cultures taken half an inch from the surface showed a few colonies, and those from a depth of 2 1-2 inches abundant colonies of this organism. In other words, it was shown that the sterilization of the dish of spaghetti at the time of baking was not only improbable, but practically impossible. There is reason to believe that it was this dish which caused the spread of the infection. It is shown that the ordinary processes of cooking are not adequate protection against the growth of typhoid bacilli.

Another interesting fact regarding this epidemic was the shortness of the period of incubation. The first case developed three days after infection, while the majority developed within six or seven days. One case was delayed for 29 days. The length of incubation is usually given as about 14 days.

EMETINE IN HEMORRHAGE

During the last few months we have published in these columns a number of short articles in which different physicians have given their experiences with emetine hydrochloride in the treatment of hemorrhage. Thus far we have not heard of a single failure with this drug, although some successes are more striking than others. In many instances the relief secured is almost immediate.

For instance, here are records of some cases of hemorrhage treated with emetine, as reported to us by a friend in New York City. He tells us that Doctor E. Valentine Buck reported to him a case of epistaxis occurring in a maid in the hotel where he lives. The loss of blood had continued so long that it had come to be a serious matter. The young woman bled every day, in spite of packing, the use of normal serum, and all the other remedies with which he was familiar. He gave this woman one injection of emetine hydrochloride (1-2 grain), and she has not bled since, and this was a month ago. Doctor Buck assures our friend that emetine without doubt is the most valuable antihemorrhagic he has ever used.

Another well-known New York physician, whose name we are not permitted to use, reported to our friend success with emetine in the treatment of two cases of hemorrhage from the lung. Both cases were severe. This physician has already had experience with the emetine in hemorrhage.

We wish that other physicians who are using this drug, whether in the treatment of hemorrhage, pyorrhea, dysentery, bronchitis, pneumonia or any other disease, would write us fully, telling their experience. Why can't we have a whole "chapter" of reports for publication in our January issue?

TWO CASES OF AMEBIC DYSENTERY

I wish to report two cases of amebic dysentery that I have treated during the last summer, so as to have them placed on record.

Case 1. Mr. F. M. had been sick for a year, the trouble commencing in March, 1913, as a dysentery. He soon developed jaundice of a very pronounced type, with rapid enlargement of the liver, colicky pains over the upper abdomen, and occasional spells of diarrhea. He came under my care one year later, and I pronounced the trouble amebic dysentery.

I instituted treatment with emetine hydrochloride, in 1-2-grain doses every twenty-four hours, and a quinine-bisulphate solution, 1:2000, at night. After six doses of emetine had been given, I gave four doses of Van Cott's vaccine, following later with two more courses of emetine and quinine. The patient responded promptly to this treatment, and in two and a half months all evidence of disease had disappeared. However, I gave him six more doses in August.

Physicians here and in Nashville, Tenn., had said nothing short of an operation

would relieve this patient; yet, he is now in perfect health.

Case 2. Mr. J. G. had been ailing for sixteen years, and he gave a history of indigestion, colicky pains in the upper abdomen and frequent spells of dysentery; also, he was very nervous and anemic.

In May last I gave him twelve doses of emetine hydrochloride, 1-2 grain for twelve consecutive days; also quinine enemas. Relief was prompt, commencing with the first dose. I have given one similar course of six doses since, and am now giving him another like it. He is infected with the bacillus coli, and I have given him one dose of Van Cott's vaccine; but he would take no more, because of the reaction produced.

I am treating another patient now, and shall report results later.

E. C. HARLESON.

Clarksville, Tenn.

[Here is a fact which should be emphasized. Please paste it in your hat where you can see it every time you are called to a case of dysentery: Dysentery occurring south of Mason and Dixon's line is likely to be of the amebic type, and this is nearly always curable with emetine. In every chronic case of dysentery, wherever it occurs, treatment with emetine, administered subcutaneously, should be given a trial. This alkaloid can do no harm—and in the amebic form of the disease it is specific.—ED.]

A DELIGHTFUL NEW BOOK BY DR. GEORGE F. BUTLER

Are you a reader? Have you, as Shakespeare says, "fed on the dainties that are bred in a book, eaten paper, as it were, and drunk ink?" Are you one of these epicureans that like to go down to the bookstores and browse among the offerings, and pick up a tit-bit? Do you scan the catalogs of rare and precious books, as your wife does the bargain columns in the daily papers? If so, *you* will appreciate to the full the delightful literary feast prepared and offered by The Ralph Fletcher Seymour Company, of Chicago, in George F. Butler's beautiful epic, "The Travail of a Soul."

In the fever and the fret of modern times, there are all too few such contributions to literature, out of the calm introspection of the seer's mind and the poet's heart. "The Travail of a Soul" embraces the whole experience of a human life—the confused groping for the beautiful, the struggles with temptation, the blunderings and failings, and, out of it all, the final attainment of happiness and love. Few works, in poetry or prose, have ever told so mysterious and absorbing a tale in so compelling and beautiful a way.

Most of our readers know Dr. Butler, and have, at some time or other, come under the spell of his seeing eye and his lilting voice. To them it is enough to say that "The Travail of a Soul" is Dr. Butler at his best. He has never given to the world anything more significant.

At the author's insistence, it is not to be given public sale, nor is any effort to be made to exploit it. The edition will be a strictly limited one, printed and bound in a fashion conforming to the spirit of the poem, each copy numbered and autographed. There will be no intention of making money out of the book. The modest price will barely meet the cost of issue. If you wish to avail yourself of this opportunity, it will be necessary for you to send your order, with your check for $2.00, in advance, to the publishers, The Ralph Fletcher Seymour Company, 408 Michigan Avenue, Chicago, Ill.

Beyond your own desire for the book, it would make a beautiful and acceptable Christmas remembrance for your friends.

GOMBAULT'S CAUSTIC BALSAM

Recently a subscriber of this journal called for the formula of Gombault's caustic balsam, but which the editor was not in position to supply at the time. Perhaps the following information will serve the purpose.

The preparation in question is a proprietary horse-liniment that was in vogue as long as at least thirty years ago; a crude, harsh mixture, but which must have found favor, since it still is being listed by the jobbers, while during all these years editors of pharmaceutical journals have been appealed to regarding its composition; indeed, it seems almost to have passed into the same category with "Haarlem oil" and "Turlington's balsam," which names virtually have become generic (like, e. g., "listerine," "chlorodyne," etc.), promiscuously

and openly manufactured by any druggist, although the "real" article still is put out as a secret nostrum.

The composition of a secret mixture being arrived at largely by shrewd guesswork, aided by more or less successful analysis, it is no wonder that alleged formulas for them often are as numerous as they are at variance. So, in a measure, in the case of Gombault's balsam; still, the basic properties are there; for, the leading and determining ingredients (notably the sulphuric acid) are readily determinable.

I submit several formulas, any one of which probably is as good as any other and will serve the purpose, provided a body does not care to "stick to" the genuine article—which, by the way, often may have been perfected, through long experience and specialization, in a way not to be proven by destructive chemistry; for, manipulation alone may make a vast difference where changes are possible. Just think of merely baking a loaf of bread!

The following formula is credited by the "Thesaurus of Proprietary Preparations" to *The New Idea*, a house-organ of Frederick Stearns & Co., at that time a firm devoted to getting up preparations similar to given popular nostrums:

Oil of red thyme	parts	3
Oil of amber, rectified	"	8
Oil of rosemary	"	10
Camphor	"	20
Alcohol	"	30
Oil of turpentine	"	340
Sulphurated oil	"	2190
Sulphuric acid	"	90

Put the sulphurated oil into a capacious vessel, best using a porcelain capsule or an earthen pitcher or jar. Then slowly and cautiously pour in the acid, the expert allowing it to run along his stout glass stirring-rod. (The reason for this procedure is, that a chemical reaction takes place and heat is generated.) Set aside to cool. Meantime dissolve the granulated camphor and volatile oils in the alcohol, then incorporate the cooled sulphuric-acid mixture.

Here is another formula, copied from *The Western Druggist* (Chicago). The first time that journal had any reference to Gombault's caustic balsam was in February, 1888, and the formula, printed in answer to a subscriber's inquiry, was credited to *The New Idea* (quite likely of the anteceding year); and it ran this way: Take of

Cottonseed-oil	ozs.	4
Croton-oil	oz.	1
Oil of turpentine	drs.	4
Oil of camphor [camphorated oil—A.V.]	drs.	2
Oil of thyme	drs.	2
Kerosene	oz.	1
Sulphuric acid	m.	40

Mix the croton and cottonseed oils, slowly add the sulphuric acid, stirring constantly. When cold, incorporate the other ingredients.

The originator of this formula avers that, after standing a few days, this mixture "resembles the original fairly well" and "replaces it to good advantage." Undoubtedly this mixture constitutes a good veterinary counterirritant; still, it is not resembling "looks" one wants, but something as nearly as possible like the prototype.

A year later, another subscriber of *The Western Druggist* asks about Gombault's caustic, but the editor passed it, forgetting his former reply. Thereupon a Buffalo druggist (April, 1889) gives this information, not telling how he got his formula; which, though, seems to be virtually the preceding one, with the addition of cantharides; viz.: Take of

Oil of thyme	dr.	1-2
Oil of amber	dr.	1
Oil of rosemary	dr.	1
Oil of turpentine	ozs.	6
Camphor	dr.	1
Tincture of cantharides	oz.	1
Sulphurated linseed-oil	ozs.	6
Sulphuric acid	fl.ozs.	1 1-2

Put the sulphurated oil into a porcelain dish, then cautiously pour in the sulphuric acid in small amounts, stirring constantly. After about eight hours, incorporate the tincture of cantharides and the volatile oils with the camphor, and when this has been dissolved add enough sulphurated oil to complete 16 fluid-ounces.

The sulphurated oil may be purchased, but the Dispensatories and the National Formulary give directions for making it.

From then on for some eight years, the same journal was pestered with requests regarding the composition of this (obviously favorite) veterinary caustic liniment, but nothing new developed, and the editor confined himself to repeating the formula from *The New Idea*. Of course, he had no idea as to whether it was anything like the original—never saw that!

Incidentally, it may interest some of the doctors who not as yet sport an "auto" to hear what good this Gombault's balsam

is supposed to do; and they can for themselves judge whether the mixtures submitted will subserve those purposes: This is what the label on the bottle claims:

Gombault's Caustic Balsam states on its labels that it is a safe, speedy, and reliable remedy for curb, splint, sweeney, poll-evil, grease-heel, capped hock, strained tendons, founder, wind-puffs, mange, skin diseases, old sores, dropsical affections, inflammations, throat difficulties, swellings or ulcerations, lameness from spavin, ringbone, and other bony tumors, and many other diseases, or ailments of horses, cattle, sheep, and dogs; will quickly remove all bunches or blemishes, without leaving any scar or other injurious effects. It can also be reduced with sweet or raw linseed oil, and used as a most valuable liniment for all kinds of simple lameness, strains, etc.

ADOLF G. VOGELER.

Chicago, Ill.

YOUR OPPORTUNITY: DON'T MISS IT

Why, oh, why, will doctors be such unpractical, inconsistent men? During the recent election campaign, the Chicago Medical Society sent a letter to every physician in a certain district, asking him to help defeat a certain candidate for the legislature, because that candidate had pledged himself to introduce an optometry bill, legalizing the fitting of glasses by registered optometrists.

I suppose that this represents the attitude of medical men and of organized medicine generally upon the subject—and rightly so. Yet, what is the actual state of the case? Briefly this: Hundreds of thousands of people throughout the country who need refraction. A few oculists, mostly centered in the larger cities, wholly inadequate to meet the demand, even if you could persuade the people to go to them, which you can't. And not one general practitioner in a thousand who knows, or cares to know, how to refract.

If the doctor really wants to keep refraction out of the hands of the nonmedical man, there is one argument that is unanswerable and all powerful. Demonstrate that he can do the work himself, and do it. The public has waited, long and patiently, for him to make good his claim that refraction is a function of the medical man; and is only at last being driven to the optometrist (and worse) by the doctor's indifference and inaction.

Refraction *is* peculiarly the function of the physician. There is every reason why the doctor should do the work. He has every kind of practical advantage over the optometrist, if he only cares to use it. There's plenty of business waiting for him, if he only signifies his readiness and fitness to take care of it; hundreds of people needing refraction in his district who will naturally and preferably come to him for it if they know that he can and will do it. If he can't and won't, what are they to do? You can't make a person take an expensive trip to the city, to the oculist, for a pair of glasses, and you know you can't.

If the doctor really believes in refraction as a medical function, then let him get to work and practice it. If he doesn't know how, let him get busy and learn. It's a very simple matter. He doesn't need to be an oculist. There are plenty of ways in which he can learn without even leaving his own office. And it is a good-paying business, that makes friends and patients for him.

THOMAS G. ATKINSON,
4770 Lincoln Ave, Chicago.

COMMENT ON CURRENT LITERATURE BY A COUNTRY DOCTOR

Echinacea.—Lyman Abbott, of *The Outlook*, receives letters from, and writes to, "unknown friends," and I take it that he means men and women whom he has never met but would like to, because he considers no one a sure-enough stranger. I have received letters from several persons whom I can classify as such, and among them is one asking me whether I am familiar with echinacoid. Yes, doctor, I am. Let me tell you.

My first use of echinacea angustifolia was in the form of the "specific tincture," years ago; and I still am employing it, as I also do the concentration echinacoid, the latter being more easily carried than a fluid preparation, while, yet, seeming to represent the entire virtues of the drug.

This is one of the drugs which have gradually crept into use from, at first, nonprofessional sources, and then from its persistent and successful use by the Eclectic branch of the profession. I have had the plant pointed out to me in the West by Indians and frontiersmen as a sure cure for snake bite. More-

over I have heard the same said of it right here in Alabama by an old negro, who pointed out what I took to be braunaria pallida, or blue coneflower.

Mohr, in his "Plant Life of Alabama," does not seem to attribute value, as a species, to the angustifolia; but Gray does. However that may be, the plant has an extensive distribution, especially in the West; although it never seems to grow except over a limestone formation.

So far as my own experience is concerned, I will state that for conditions requiring strengthening of the reparative forces of the body—raising the opsonic index—I know of no agent of greater value than echinacea. It may be used both locally and internally, alone or in combination with other drugs; it hardly has a parallel in our materia medica, although baptisia nearly approaches it in some ways as does thuja also. However, the latter two have distinct indications, and neither is so broad in application.

I wish someone would use echinacea in a series of cases where indicated and prepare case-records, with careful blood count in each. I do not doubt that the clinical record of this drug would be borne out in black and white, or, rather, in "red" and "white." At all events, I consider that it is "good for" anything requiring the police-powers of the individual to be increased. And not only that, but the drug is "safe and sane," and, to use an expression of Dr. Stollenwerck (one of my Unknown Friends), it does not require much "watchful waiting" and a personal supervision of each dose administered.

Yes, doctor, drugs from Europe are up, but echinacea, macrotys, apis mel., solidago, eupatorium perfoliatum, eupatorium purpurea, salix nigra, rhus tox., besides some few others, are grown by nature right here in your own country. Incidentally, if "gossypium" does not go up, you and I shall have to go and dig native "yarbs" and skin off a little native bark to treat our patients with.

The Twilight Sleep.—Nearly every lay magazine I pick up seems to have something to say about twilight sleep, as "made in Germany." I admire the Dr. Lyman Abbott, of *The Outlook*, very greatly. True, if he and I ever live in the same precinct, I am going to take up the matter of our pairing in the voting; but, still, I must say he is one of the most liberal conservatives and the most unorthodox orthodox teachers I have knowledge of, with all that that implies. He is a lovable personality and a deep, broad thinker. However, in my opinion, recent advice in *The Outlook*, that women be ultraconservative regarding the selection of a line of treatment when being confined is a bit far-fetched. I think that the drugs for these purposes (as well as others) should not be discussed with the patient. All of them are, of course, dangerous and not to be placed in the hands of anyone who by misdirected use may cause harm. I think it would be far safer to place edged surgical tools in the hands of the untrained than to let them have the say-so as to use of such drugs as scopolia, hyoscyamus, papaver, atropa, and the like.

The modern demand and trend is toward painless childbirth, but advice by lay magazines regarding the manner of confinement is possibly a bit farfetched. I believe in popular knowledge of things medical, including all points relating to hygiene, sanitation, and general disease prophylaxis, and I realize that the day of mysteries about things scientific is gone. Nevertheless, we hardly have reached a point where, when called to attend a confinement case, we can with advantage hold a consultation with the patient and ask her whether she prefers German, American, Scandinavian or esoteric methods, and just how much of a dose of any of the very powerful alkaloids she thinks would be perfectly conservative for her. In place of this, the modern obstetrician will go into the lying-in chamber with a full sense of his responsibility to mother, child, and society, and will employ anything needed, from his own strong and positively asserted personality to hyoscine, chloroform or anything else, even including consultation and cesarean section.

In this vicinity, the physician seldom sees a confinement case without a "granny" having been in attendance for many hours and who has decided that "it is stuck and won't come." For this reason, it is almost certain that such a call is to pathological labor. It is always a good plan to take everything portable and available in the way of possibly indicated remedies and all the hardware that can be transported conveniently. About the only thing to figure on is that it is probably not a case of placenta prævia, and sometimes the physician gets to see that if in a marginal form. As for myself, I often wish I knew of more resources and that I could get a consultant in time. However, it is remarkable what can be done with the modern aids to quick and safe anesthesia to any degree desired, and it is also remarkable to what a low percentage mortality of mother and child can be held down in pathological labors.

Get a Typewriter.—No! I am not advertising any make of machine, in fact, I have not even asked the people from whom I purchased mine how much they will turn loose if I mention the make. What I want to say is, that many of the standard-machine makers are replacing present models by newer, better ones for the expert typist, but which are not of any special advantage to the ordinary user. This fact enables one to purchase a typewriter at a most reasonable price—and the great advantages to be derived from the use of one can not be realized until you have one. Labels look better and are more legible. Often notes to patients giving special instructions are sent, and if these are "printed," it is more nearly certain that they will be correctly read. Also, having a machine will make any busy man attend better to the amenities of social and semisocial correspondence. From a financial standpoint, the typewriter should pay for itself, if one will devote a few of his odd moments to writing short, sharp, dignified, yet, positive notes to divers patients who fail to realize that it takes money to feed a family and a pet saddle-horse.

The only disadvantage I have found in using the typewriter is, that it requires the presence of a dictionary upon the desk. Given a mind naturally phonetic as to spelling, and let daily life, correspondence, and interchange of thought be carried on for a protracted time in the more naturally spelled and less heterogeniously derived Spanish language, and a good dictionary ever at hand is needed. Clearcut type does not disguise eccentric spelling as does a handwriting which would hardly secure the professorship of calligraphy in a business college.

Nonpaying Patients.—Call them real or involuntary deadbeats, choose any synonym you will, but the fact remains that certain clients do not pay. Whether they be intentional or unintentional delinquents, makes no difference in its last analysis; some people do not pay me, although I suppose my percentage of collections is fairly good. Even the lay press has taken up the subject lately, and it is a serious problem. I will give a few cases that, although they are purely hypothetical, are parallel with many genuine ones, I am sure.

Old Mr. X is a nice old gentleman and evidently conscientious. He has been a producer of wealth to the amount of his needs and those of his family until recently. Now he has an invalid wife and certain unmarried progeny; those that are married being unable to help him. In fact, it might be said progeny could be classed as semigelatinous offspring of consanguineous and partially albuminous parents. (Partial paraphrase of Dr. Upsher's, of the University of Virginia.) Economic conditions are such that the old man can just hold his own when sickness does not intervene. Sunday he glorifies the Deity in a four-year-old suit and gives thanks for his heritage beyond the grave; but, as for the present, he is down and out, although he is a "nice" man, in some respects a lovable man.

It is very well for the individualist to say that this is a land of equal opportunity for all and that Mr. X should have put by something for his old age; and it is also very well for the collectivist physician to say that he has reached an age where society should at least partly pension him. But it seems to be up to the nonbeliever in the necessity of charity to furnish, as an individual, services and medicine, including the helpful smile, that should reinforce the suggestion accompanying every dose. Perhaps before the time when general prophylaxis has done away with most disease the STATE will care for cases like this; but until then what? Someone please tell me; perhaps I have a real Mr. X, or may have one.

Bill Y is another type. Bill would pay his family doctor, but, of course, he is last on the list. Sometimes the purchase of a new hunting dog, a little trip, a small amount of prohibition booze or other necessities take the "last bale," seed and all. It is not because Bill's doctor fears that he will get another M. D., he devoutly wishes he would; but some way or other he always goes. Bill will holler, "Hey, doc," at 2 a. m., and just talk him into going. Is it because the doctor is sorry for the wife or little Bills, already here or still nascent; or why is it? Go he will, sore as he is, and knowing, as he does, that he can not even get a load of fodder from the ubiquitous Bill. He will go this time and possibly the next pending arrival will be named in his honor. It is just possible that this heartfelt token of appreciation will be shown. *Why?*

Jim Z is yet another example—also hypothetical, of course. Jim has been turned down by everyone and forced to get real money when in need of professional services. This is strange, too; Jim always has paid his doctors. Yes! paid them well—in slander. Jim has never had a capable physician in his family. Some people, especially those who have been up against it, think that at least a

modicum of medical knowledge is required to get their little piece of wallpaper. I thought I was sweating the figurative blood and that I had to make a hard stirup of brain-cells of latent memory; but according to Jim's estimate they must have gotten their education from a superficial glance at a patent-medicine almanac. One attendant kept Jim's wife in bed for four weeks, *to make the bill big,* the next one resorted to in extremity can not doctor his dog again, and the last one should not be tolerated in the community.

The Jim type is easy to handle, but how shall the others be dealt with? It is hard for the average man to get on when well, but when sick it is an extra load. Just where is the line of demarcation between the deadbeat and the unfortunate? How much charity work should be forced on the individual?

"September Morn" in Alabama.—Last night a hurry-call came. Of no especial interest from a medical standpoint. Just acute indigestion, a general upsetting of the alvine tract. Papain, acting, as it does, both in acid and alkaline media, aided by hot applications, the colon-tube and a hypodermic of pituitrin, to hasten restoration of peristalsis, were all needed. It was the home trip which furnished the item of interest.

Going into a stretch of woods, everything was dark. The milky way was just beginning to be modified by a scarcely to be defined creamy tint of its nebulæ, the seat of the coming sunrise was just less dark, the woods were, seemingly, darker than ever; not even the discord of an owl broke the silence, although better ears might have heard a far-off cock crow. Half an hour later, the dark forest-trail opened and a new day had been delivered from the womb of time, without travail. At one side of the path was disclosed a pasture, to the other a cotton field. The pasture's green was relieved by the yellows and purples of the late-blooming composites and vetches. The white of the open cotton was offset, on close look, by the number of the picked bolls and the dulling green of the foliage. As yet no frost has come to tint the just-left forest, but the shading of the chlorophyl greens was exquisite. Over pasture and cotton field were myriad dew drops. Hackneyed likening of dew drops to jewels fails; these were just dew drops tinted by a rising sun. Sun-tinted dew drops, that is all. Do not speak of solar-spectrum coloring—I have forgotten the solar spectrum clean to the ultraviolet. There was no thought of science. They were just dew drops.

While I am no poet, and not even claim the hereditary or atavistic right to the soul of one, I involuntarily dismounted and threw the lines over the broncho's head. Both rider and "bronch" being creatures of the West, the mount calmly grazed as far as possible without wandering and the rider stood and took in the details of the vista. Carried on the unknowably gentle breath of the morn were wisps of white vapor extending into the distance almost to clouds, just letting through a glimpse of the final break of the Appalachian hills, that were once the Appalachian range, dying out toward the Warrior River near its junction with the Tombigbee. The rider took the lines, grabbed the check of the bridle, to forestall possible pitching, swung into the saddle, and let her go. Home, a cup of hot coffee, forty winks before the day's routine.

A Bit of Folklore with Apology to Uncle Remus and B'rer Rabbit.—Does anyone know why a plantation darkey always asks for the tooth the doctor pulled? It took a long time to find out, but this is authoritative. It took time and patience to get at the real cause, but here it is.

If anyone has one of your teeth and combines it with a lock of your hair and a little piece of lodestone, wrapping the same in a red flannel rag that has been worn next to you, and strengthened up by the addition of a few feathers from a "frizzly chicken," it will "sure trick you." That means "hoodoo."

How far is this from the Congo? Many of my northern friends will not appreciate the value of this bit of ultrascientific knowledge here freely imparted, but most of those from this part of our republic will. Possibly some of them can add more facts to it. Anyway, did anyone ever see a "nigger" in such agony that he forgot to ask for that tooth?

A. L. Nourse.

Sawyerville, Ala.

THE SPRINGFIELD OPEN AIR COLONY

Our good friend Dr. George Thomas Palmer, of Springfield, Illinois, is doing, in a quiet unostentatious, business-like way, a most admirable work which deserves much more publicity and support than it is receiving. He is furnishing and conducting "a place near home where the tuberculous of moderate means may regain his health and learn how to live." And that ought to be *nuff ced,* for to any intelligent man, with any knowledge of the tuberculosis situation at all, that brief statement ought to reveal, at one glance, the

crying need of the hour in the tuberculosis problem, and the shrewd insight and practical experience with which Doctor Palmer's institution has met the need.

The Springfield Open Air Colony is neither a charitable organization nor a commercial enterprise, but a self-supporting, self-respecting sanatorium, where the patient of moderate means, without mortgaging his home or stripping himself bare, and without surrendering the self-respect that pertains to paying one's way, may obtain the best that modern science has to offer in the way of organized, intelligent help, offensive and defensive, against the disease that he is fighting. I do not know what better, what more splendidly useful work one could do than this.

I positively envy my friend Palmer his genuine helpfulness and achievement. I wish I could bring every physician within reach of my voice to understand and appreciate his work, and thus turn toward it a big tide of sympathy and support which would make his heart warm and his hands strong. And I wish I could do something to spread the advantages of the Colony among those who need them. I know that Doctor Palmer will be only too glad to answer any questions you may want to ask about his Colony and its work. If you have not already received one, write and ask him for a copy of his illustrated pamphlet, which will tell you in detail the things of which I have merely hinted at the spirit and inspiration.

DOCTOR STEELE'S APPOINTMENT

Dr. D. A. K. Steele has been appointed Senior Dean and Head of the Department of Surgery in the College of Medicine of the University of Illinois, a tribute to his efforts in supporting and upbuilding the College for more than thirty years.

PSEUDOCYESIS AND ECTOPIC PREGNANCY

The patient, a woman 38 years of age, became pregnant when 20, her baby dying, at six months, of infantile cholera. She is of Scotch descent, of a cheerful, and practical disposition, always has been healthy and well, although suffering occasionally from headache (possibly autotoxemic); her menses always have been regular, without pain, the flow lasting four or five days; has no leucorrheal discharge. She married in May, 1913, missed the July period, had a "show" in August, a regular period, with profuse flow lasting three days, in September, again in October for five days, in November for two days, then none until March 8, when there was a slight flow for a day.

There was mild "morning sickness" in August, with pain in the breasts, the latter enlarging gradually. The abdomen increased in size as in normal pregnancy, with sensations of fetal movements observed in the middle of the fourth month and continuing to full term, although never pronounced. At the beginning of ninth month, the abdomen changed its contour and the patient looked as if she were approaching full term. The hips enlarged and the abdominal wall thickened with fat deposit. The uterus could not be outlined nor was a fetus felt at any time. The cervix was hard, not patulous. In March, the patient experienced slight pains in her left side, radiating to the front and through to the sacrum; expected labor on March 26, but pains did not commence until March 30, when there set in a profuse flow, bright-red, with decidual shreds in the discharge. She felt a tenderness in her left side.

Vaginal examination disclosed a hard, nonpatulous cervix, with a hard mass to the left of the uterus. Bimanual examination disclosed nothing, the fatty abdominal wall preventing outlining the uterus. Under chloroform anesthesia, the uterus was found slightly increased in size, the mass at the left was diagnosed as ectopic pregnancy at about the sixth week, with rupture into the broad ligament. Operation was advised.

The patient was removed to the hospital April 2 and operated upon April 3, when the diagnosis was confirmed. The abdominal wall was very thick, the right tube and ovary were normal, left ovary atrophied, left tube thickened, rupture at the fimbriated end and extravasated blood in the broad ligament.

The patient was given one full-strength H-M-C tablet hypodermically before operation; experienced very little pain, and did not vomit until the second night after operation. Vomiting increased, with expulsion of dark-brown vomitus. Excessive tympany, with severe gas-pains and reverse peristalsis, made the next six weeks almost unendurable; then repeated enemata brought relief. Pituitrin was given freely and may have had some effect in restoring tone to the intestinal muscles.

A free bowel movement was obtained on the eighth day. The abdominal wound began to discharge freely on the same day, with appearance of sloughing and separation of

the edges. In the fourth week, the wound was healthy, without discharging, granulating nicely.

The temperature was normal for four days, never above 101 degrees at any time. The pulse was rapid and of low tension for two weeks, gradually returning to normal.

RUSSELL J. SMITH.

Bancroft, Ida.

A REMEDY FOR STOMATITIS AND A CLUE TO PELLAGRA

I am not sure that the following thoughts are worthy of much consideration, but possibly there may be something of value in them and thus I write to you in that attitude of mind.

By considerable experience, I have found out that the most severe and intractable cases of stomatitis (canker in the mouth) readily yield to an alkali (sodium bicarbonate) held in the mouth for a few minutes and then swallowed. We know also that soda is of great benefit in gastrointestinal catarrh. We know that soda is very beneficial in all forms of acidemia, and we know that acidemia often produces skin lesions, gastroenteritis, stomatitis, mental disturbances, and other symptoms, which are frequently aggravated during certain seasons and temperatures. It is very pronounced in children under 12 years of age, owing to the active metabolism going on.

These facts have led me to inquire whether it is possible that we might have here a clue to the cause and cure of pellagra? I have had no chance to treat a case of pellagra, but have thought, in view of the present uncertainty among doctors regarding treatment, that your readers might think it worth while to try it in their cases. Doses of a level teaspoonful in water three times daily should be given.

A recent bulletin of the U. S. Public Health Service states that the arsenical treatment is without effect, but we hear from numerous other sources of benefit derived from the administration of cacodylate of sodium. May it not be the alkalinity of the cacodylate which does the good, instead of the arsenic? The same bulletin declares that in an orphanage at Jackson, Mississippi, practically all of the patients (32 per cent) were between the ages of 6 and 12 years, just the time when acidemia is most pronounced in children.

The author of that report is a strong advocate of the dietary theory, but states that there is very little support for the infectious theory.

I ask your charitable indulgence with my baby idea.

C. D. FAIRBANKS.

Brownsville, Tex.

[We all appreciate Doctor Fairbanks' suggestion, and the editor hopes that some of our good friends in the south, who see many of these cases, will comment upon it—better yet, try it out. True, others have broached the idea that there is an acid intoxication in pellagra. Thus, our good friend, Doctor Pixley, was long of the opinion that it was primarily due to the presence of rancid, acid-producing fats in the intestinal canal.

On page 1100 of this number of CLINICAL MEDICINE we publish an extended abstract of Goldberger's articles on pellagra, the original of which appeared in Public Health Reports. These are the articles to which Doctor Fairbanks refers. They are of exceeding importance, and we urge everyone to read them carefully. However, while we believe that proper diet will help the unfortunate pellagrin, we do not feel inclined to stop there. We know that great benefit follows the use of the intestinal antiseptics. We know that cases are cured by calcium sulphide—and Isadore Dyer reports 100 per cent of cures with quinine hydrobromide! With such results, the doctor who would "throw physic to the dogs," in treating these poor people, would seem to be making a mistake—a very serious mistake.—ED.]

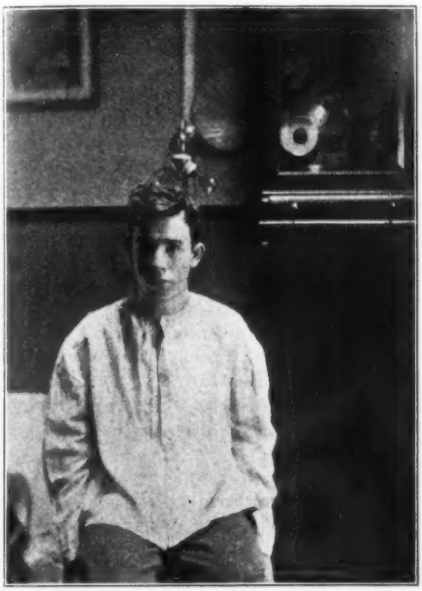
THE DIVIDED SACK—A GARMENT TO BE USED WHEN EXAMINING THE CHEST

"The writer has for many years examined all patients stript to the waist."—Charles L. Minor, in "Tuberculosis": Klebs, p. 304.

Exposure of the body to the waist may not be unsightly, but it seems inelegant and unnecessary, and sensitive women often object. For several years past, I have been using the divided sack on my patients, when making examinations, and have found it perfectly satisfactory.

Doctor Minor speaks of retiring from the room to give the patient a chance to disrobe. If the sack is used this is unnecessary. A square yard of space behind the door can

be curtained off, and specially lighted. This place should be provided with a stool, a clothes rack, mirror, and a pin cushion with assorted pins—plain, glass-headed, and several sizes of safety pins. If space permitted,



Front view of sack

I should enlarge the dressing room and put in a well-appointed princess-dresser with a long, wide glass. A happy surprise will come to the physician who has never used such a room, upon seeing how much his patients appreciate it.

The sacks themselves are very simple. I use six of them; two small, two medium, and two of large size, and each one has a different color. They are made of the best grade of outing cloth, which wears well, has a pleasing appearance, and is agreeable and comfortable to the body. The sleeves are full, admitting of free examination of the arms to the shoulders. Opening the top button, front and back, exposes the neck and shoulders.

The entire front or back of the chest may be examined without causing the patient any anxiety regarding exposure. The patient's body is protected throughout the entire examination. Large pearl buttons are used for appearance's sake and ease of opening and closing. Figures 1 and 2 show the appearance of the sack in use.

I provide a long kimono with waist part opened like the divided sack. This permits the patient to remove all the outer clothing, and come to the examination-stool unhampered and unembarrassed. Also, a patient thus protected feels perfectly comfortable in the presence of an assistant.

ELMER C. FAHRNEY.

Hagerstown, Md.

—

[Doctor Fahrney has sent us drawings showing exactly how the divided sack is to be made, and giving the exact measurements desired by the garment-maker. We have no doubt he will mail these to any physician,

Rear view of sack

providing stamps are sent for postage and trouble incurred. The idea is an excellent one.—ED.]

THE ELIMINATION OF LICE

During the last year, I have read several articles in CLINICAL MEDICINE regarding lice and their destruction. Here is my remedy.

All lice look alike to gasoline. This simple substance, procurable at almost any grocery store, will kill Mr. and Mrs. Louse and their whole family, no matter what

part of the body they infest. Give the gasoline a trial, Brethren.

W. B. DORE.

Macon, Georgia.

—

[But warn your patients to take the treatment out of doors, at a safe distance from a gas-jet or kitchen-stove.—ED.]

POISONOUS MUSHROOMS

In addition to what is said in the November number of CLINICAL MEDICINE, page 1007, on mushroom poisoning, I want to add a word as to recognition of species.

All the species of amanita have a ring round the upper part of the stem and a cup, or volva, at the base of the stem. In *amanita phalloides* the cup is very distinct, but in *amanita muscaria* it looks like several cups, or layers. The top of the pileus is pale yellow, covered with distinct warts an eighth of an inch or more in diameter. All the species of amanita are white underneath the pileus.

By noticing these points no one need gather any of the amanitas to eat. While some of the species of amanita are reported as nonpoisonous, it is well to avoid all of them.

G. H. FRENCH.

Carbondale, Ill.

—

[It is well to repeat the therapeutic and diagnostic advice given in the article to which Professor French refers. If symptoms appear early, then muscaria poisoning may be suspected, and for this, atropine is the indicated remedy. If the appearance of the symptoms is delayed (36 to 48 hours), then treatment must be symptomatic, special attention being given to excretion.—ED.]

SOME INTERESTING GELSEMININE SUGGESTIONS

In answer to your request for personal experiences in the use of gelseminine, in the November issue of CLINICAL MEDICINE, herein are given a few typical cases in which the remedy was given according to its indications. These indications are as follows: Determination of blood to the head, causing flushed faces, bright eyes, contracted pupils, restlessness and excitation. It is a remedy for sthenic conditions, and is contraindicated in asthenia. It is a remedy for acute inflammations in children, and for spasmodic affections. In infantile convulsions, colic, headache, torticollis, restlessness with fever, coryza, reflex disturbances of dentition, I have always found it of great service; and fever, restlessness, and pain, if present, are relieved in a remarkable degree.

It is a constant ingredient in my prescriptions for a commencing cold, giving relief promptly. Hypodermatically administered, it often relieves pain as well as morphine. Its great field of action, however, is in the regions supplied by the cerebral and upper spinal nerves, and in neuralgic and spasmodic affections of the head and neck.

A baby, ill with pneumonia, in the second week developed contractures of the muscles of the arms and legs, feet and hands, with slight opisthotonos. A few doses of gelseminine, given in solution, caused complete relaxation, and the remedy was stopped, with no return of the symptoms.

In rigid os, with thin knife-edge openings, three granules, repeated every fifteen minutes for three or four doses, will produce relaxation. This has been my experience in many such cases.

A man with acute retention of urine, due to cold, was given a hypodermic of three granules. Here there was acute spasm, and relaxation was prompt.

We often meet with cases of fever in children, with flushed faces, great restlessness, and jerking of muscles, in which gelseminine is directly indicated and the response to it rapid. It may be that this condition is present in the exanthemata, or acute inflammations, or in the troubles of dentition, or in intestinal derangements, or as a result of injuries, but, wherever found, the indications are met by gelseminine.

I have used gelseminine in ovarian diseases where spasmodic pain was complained of, in dysmenorrhea of the congestive type, in backache of the menstrual period, here often in conjunction with macrotoid, and as a hypodermic remedy in pain following laparotomy, instead of the morphine asked for, and in none of these cases have I ever been disappointed.

I esteem this remedy as one of the most important of all the antispasmodic drugs in any emergency case.

R. J. SMITH.

Bancroft, Idaho.

—

[This is an interesting report—one of many which we hope to receive, the balance in time for publication in our big January

issue. Remember, our friend Doctor Shaller is very anxious to see full reports from all parts of the field. What do *you* know about gelseminine, Doctor?—Ed.]

STILL ANOTHER PELLAGRA THEORY

It is with regret and surprise that I read an article in the November issue of Clinical Medicine which has an uncertain sound with reference to the cause and treatment of pellagra. This is not up to date enough for *our* journal by at least a year. In May, 1913, Alessandrini and Scala, of Rome, announced the cause and specific treatment of pellagra. Alessandrini sent me his monographs, and I am enclosing a brief resume of their conclusions. They are very definite and exact, and should be a boon to American physicians. They are as follows:

The Cause of Pellagra

1. Pellagra is a chronic intoxication caused by the presence of colloidal silica in drinking water.
2. Pellagra is a disease strictly localized and contracted in districts where the water supply is in contact with an argillaceous terrain.
3. Colloidal silica makes irreversible and insoluble compounds with the proteid substance of the tissue cells.
4. This combination abstracts water from the tissues, the resulting drying giving rise to cutaneous manifestations and digestive and nervous disturbances, the classical triad of pellagra.
5. The acid intoxication is concentrated by evaporation, hence the cutaneous manifestations on the face, neck and hands.
6. Pellagra is not affected by maize alimentation.
7. Pellagra is not due to filaria.
8. Pellagra is not communicated by the simulium fly.
9. Pellagra is not a parasitic disease.

Prevention and Treatment

1. Pellagra is prevented by treating water supplies and reservoirs with broken limestone.
2. The essential treatment of pellagra is alkaline.
3. Inject intramuscularly in the gluteal region 1 Cc. of a 10 percent solution of trisodic citrate, daily at first, later at longer intervals.
4. Treatment of the ordinary case will take from one to two months; the number of injections will be about one-half the number of days under treatment.
5. This treatment will cure pellagra without change of diet, domicile, occupation, or sanitary environment.

E. M. Perdue.

Kansas City, Mo.

[Clinical Medicine not up to date! That touches us "in the quick." In matters of therapy we try to be the most up to date medical journal published. However, we will confess to being somewhat less familiar with Italian literature than we are with the German, French, English, and American. So we thank Doctor Perdue for this reminder.

As we have stated in the comment upon Doctor Fairbanks' article in this number, others have suggested the value of alkaline treatment in pellagra, though for reasons somewhat different from those proposed by Alessandrini and Scala. Perhaps the hypothesis presented by these gentlemen is sound and will stand the test of close criticism, yet we confess that it seems to us assailable. For instance, the disease is undoubtedly greatly on the increase in the South.

If pellagra were due to the water supply only, then the incidence should not vary much from year to year. Also, Goldberger has shown that while the inmates of the public institutions in the South suffer greatly from pellagra, the employes of these institutions escape entirely—and they certainly drink water from the same sources. Read the abstract of Goldberger's article and an editorial on pellagra, both published in this issue.—Ed.]

THE RED-CROSS CHRISTMAS SEALS

Every doctor should encourage his patients and friends to buy generously of the Red Cross Christmas Seals, which will be offered for sale, upon November 30, throughout the Nation. These seals should be affixed to all Christmas letters and Christmas gifts. The income derived from their sale will be used, as in previous years, in the great nation-wide fight against tuberculosis. Every dollar spent in this way may help to save someone's life. Buy generously yourself and encourage others to go and do likewise.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

NO therapeutic measure has been so quickly accepted by the mass of the medical profession as vaccine therapy. In the beginning, the vaccines used were autogenous, or personal, and were prepared, as a rule, by skilled bacteriologists, who either personally administered the vaccine or instructed the attending physician how to give it. It was but a step to commercialize vaccine therapy; and it was not long before mixed stock vaccines were put on the market, so that it is a common thing for doctors in remote country districts, as well as in our large cities, to have in their office or medicine-bag a syringe and a supply of commercial stock vaccines warranted to cure every disease "that flesh is heir to."

We once deplored polypharmacy; but the fantastic and heterogeneous composition of many commercialized stock vaccines recommended for "mixed infections" would make the old polypharmic Warburg's tincture look like simplicity simplified.

Stock vaccines may contain but one variety of bacteria, in which case they are called single; or they may contain innumerable varieties, hence are called mixed vaccines. A stock vaccine is made in bulk and afterward subdivided for proper dosage. I quote from the "Practical Medicine Series," Volume VI, 1913:

"The very frequent failure to obtain satisfactory therapeutic results with stock vaccines of a single species, race, group or strain prompted the production of those called polyvalent vaccines. Like mixed vaccines, they represent an effort to hit a minute and possibly uncertain target with a widely spreading charge of therapeutic ammunition. There are no satisfactory data to prove the superiority of any of the numerous kinds of polyvalent stock vaccines over the corresponding ones of a single source. They serve simply to complicate vaccine therapy and to engender a false sense of security on the part of the physicians using them.

"Objectionable mixed stock vaccines include practically all the mixed vaccines now on the market. They are not even corresponding in a sense that a preliminary bacteriologic diagnosis has established the identity of the bacterial species involved in the mixed infection under treatment. For the most part, they are to be used by the unscientific procedure of guesswork. The physician is expected to assume that two or more pathogenic bacteria contained in the mixed stock vaccine are the active agents in the case which he is treating. Having reached this assumption, he discharges into his patient a mixture of bacteria including the ones whose presence is suspected, and several others; for these mixed vaccines are generally very liberal as to bacterial species entering into their composition."

Autogenous vaccines are the agents *par excellence* of vaccine therapy. They are made from bacteria taken from the patient in whose treatment they are to be used. They usually are simple, being derived from a pure culture of a single causative organism isolated from the affected tissues. In using autogenous vaccines, a correct bacteriological diagnosis is a prerequisite.

It is not always possible to secure an autogenous vaccine, and in such cases, where the physician is sure of the character of the infection, he is perfectly justified, notwithstanding what is stated in the above quotation, in employing a reliable commercial vaccine of a single species. I am not partial to mixed vaccines.

In my work at Mudlavia, I prefer to use autogenous vaccines prepared in our laboratory, when we can do so; but I have had good success with good stock bacterins in the following classes of cases:

Acne treated with a stock vaccine made from the acne bacillus will almost invariably be cured. I give from thirty to one-

hundred millions at a dose, according to the character of the disease. The treatment may have to be continued for several months.

Gonorrheal vaccine has proved of value in my hands in a great many cases. It is especially of value in gonorrheal arthritis.

In whooping-cough, pertussis vaccine is of unquestioned benefit. And in cases of chronic rheumatism, arthritis deformans, and neuritis, I very often get good results with vaccine therapy.

Stock vaccines are useful, but they should be of that organism that has the fewest number of strains. Mixed vaccines, if used at all, are to be employed only when a mixed infection has been bacteriologically proved to be present or if tangible evidence is at hand to lead one to suspect its presence.

In bacterial infections, the stimulus is the specific organism or its toxin; tissue-cells react to this stimulus by producing specific antibodies; the larger the amount of specific antibodies the cell is made to produce by a vaccine, the greater is its therapeutic efficiency. If, however, instead of reacting to the specific organism alone, the cell is called upon to divide its reacting capacity in the production of antibodies to two, four, six or even more varieties of organisms, the ability of the cell to manufacture the specific antibody is reduced, at least in direct proportion to the number of nonspecific organisms contained in the vaccine. If the principles upon which the use of vaccines depends are to be observed, it manifestly is illogical and, to say the least, bad therapeutics, to employ this agent in a manner diametrically opposed to its basic principles.

In *The New York Medical Journal* for July 19, 1914, Dr. Alfred C. Reed, of Changsha, China, has a very interesting article on alkaloids. He writes in part:

"There is a wholesome tendency in approved therapeutic practice to discard drugs whose exhibition can not be justified by a definite physiological indication. This inclination parallels the equally good habit of monopharmacal prescribing, especially in the use of potent drugs. If an occasion requires the employment of two or more powerful drugs, their separate administration makes the control of each easier and more accurate than that of their admixture. Just so is there a constant effort to reduce all remedial measures, especially drugs, to their simplest terms, in the interest of accurate doses, undivided action, and more powerful effect. Thus, Leonard Rogers has rendered distinguished service by replacing ipecac by emetine in the treatment of amebic dysentery. Emetine is among the most recent additions to the effective armamentarium of alkaloids."

You can not keep a good thing down, although the old conservative has clung to the galenicals until medical progress has forced him to use the active principles. Active-principle therapy is rational, scientific, and easy. Why not use more of the active principles? You will not regret it when you once learn how to use them properly.

I am convinced that physicians are making a mistake in abandoning the use of drugs, especially the active principles, and substituting for them many of these new therapeutic fads.

It has been my experience (and I believe it has been the experience of many other physicians) that, after trying vaccines, radium, mental healing, and the "hundred and one" new methods of treatment for certain conditions, I have been compelled to return to the good, old, tried drugs, like digitalin, aconitine, veratrine, colchicine, strychnine, ergot, quinine, morphine, chloral hydrate, aloes, rhubarb, castor-oil, and so forth—you know them all. They have been good, reliable friends of yours in many a serious experience, so, why give them up for things not yet thoroughly tried out? When you have a really sick patient, remember the old saying, "Don't swap horses in the middle of a stream," especially when you have a good horse (or drug) that has carried you safely over many a turbulent stream before.

We have mastered the art of work in the United States to perfection. Our modern, up-to-date giant factories are 1000 percent efficient, as compared with the more antiquated methods of industry followed in many of the countries in the old world. The next thing we must master is, the art of play. We must learn to relax from our stress and tension more frequently than we do, for we are a tired nation, perhaps the most tired nation on earth. There is danger ahead if we do not.

The evils of our intensive life, of our restlessness and never ceasing activity, are

already beginning to manifest themselves on a national scale. We are becoming dancing-crazy, not from sheer frivolity, but from overstrain. The tango has become an obsession with us, because we have too long stifled the instinct for play, because we are the most weary nation on earth. Some of us manage to escape neurasthenia, but there are few men in the United States who are free from chronic or acute fatigue.

We are breaking down mentally and morally, as well as physically, because we have no room for adequate relaxation in our scheme of living. The "epidemics of immorality" which break out in many small towns that have always been considered models of propriety are simply a reaction resulting from the "moral fatigue" which we have allowed to accumulate in our social system, without doing anything to relieve it.

We need to relax the mind as well as the body. We need to listen to lectures. We need to read novels. We need more of a social life in this country, for all the people. We need more frequent mingling with our fellows. We need more art in our daily life, and more culture. At present our life is bare of either or all these activities. All of which can be summed up in one word—leisure. We need more leisure.

As the lamented Dr. I. N. Love used to say: "Eat less and play more. Indulge in less fret and fume and in more fruit and fun."

It may be news to the layman, as it will be a surprise to many mental healers and disciples of the New Thought, to learn that few, if any, books of distinction on the subject of medical therapeutics nowadays are published without containing much in favor of psychotherapy. In the middle years of the last century, when a method of treating bodily disease through the mind made its appearance in this country, in Portland, Maine, it was supposed to be an entirely new departure (though it was not), and an exceedingly absurd one, and almost immediately was being savagely torn from limb to limb by people and physicians alike—only it would not remain torn, but, like the crustacean it was believed to be, insisted upon growing a fresh claw in place of every one wrested away. In fact, a chief result of these attacks seemed to consist in an advertising and accentuation of the excellencies of the newcomer that greatly aided to keep it alive.

But it was noticeable even in those early days that the antagonism to the "mind-cure fallacy" never emanated from the most able physicians or the most learned among the laymen. Ambroise Pare, the famous Paris physician, added to the age-old *"vis medicatrix naturae"* another aphorism, namely, "We amuse the patient while nature performs the cure," and thus gave evidence of what the attitude of really cultivated physicians must be toward real mind-healing; for, it would scarcely be too much to say that this able physician's statement might stand for one of the pillars upholding the base on which modern psychotherapy rests.

One of the most important aims of the psychotherapeutist is, to remove such obstacles as may stand in nature's way, so that it may work unhampered; and he does this by means of suggestion. Moreover, it is well known by all properly instructed physicians that this principle of psychic influence, as it is called, this instillation, by the doctor into the patient, of faith, hope, joy, peace of mind, by whatever means he might, has been employed, and with gratifying results, by every practicing physician since the days of Aristotle, the first physiologist.

I never have known a really intelligent and learned physician to refute the claims of psychotherapy, except as in the mouths of some of its irresponsible advocates it became imbecility. On the other hand, I never have known a really cultivated and learned psychotherapeutist to refute the claims of medicine in its place. In short, the enmity which often seems to exist between the two professions really exists only between certain disciples of each, and not between the professions at all; for, as we shall see, the two, when once we know them both, become complementary the one to the other, each giving a strong and an able hand at need to its brother.

Some persons (for nowadays it is always the person, not the disease, that is treated, both by medicine and psychotherapy) would be no more amenable to psychic influence in the desired direction than would a stone, while they might respond favorably to a right drug. And it is so conversely. A given patient may either be injured or remain unaffected by a drug that would heal another, yet, will respond favorably to right suggestion. Others require both medicine and suggestion.

Among the Books

RUTTIN: "THE LABYRINTH"

Diseases of the Labyrinth. By Dr. Erich Ruttin, of the University of Vienna. Foreword by Prof. Victor Urbantschitsch. Authorized Translation by Horace Newhart, A. B., M. D. With 25 figures. New York: The Rebman Company. 1914. Price $2.00.

It is really remarkable that the ear should have been for so many years the field of special practice without stimulating any special research, and that otologists should, for so long, have busied themselves at the very door of so important a structure as the labyrinth without attempting to explore it. Yet, this is virtually the history of the labyrinth until very recently. It is only within the last few years that any systematic work has been done upon this important organ; and even now our knowledge of the labyrinth and its functions is exceedingly crude and meagre.

Of those who have contributed to this knowledge, and are still contributing to it, none is more conspicuously entitled to our gratitude than is Doctor Ruttin. American otologists have followed his work in Vienna with intense interest, and it is not surprising that they should have demanded a translated edition of his monograph giving his own story of his investigations.

The profession of this country is highly indebted to The Rebman Company for the presentation of this translation, ably done by Doctor Newhart. It is not to be expected that the sale of such a book will be very large; but it is a work that will be keenly appreciated by those to whom it appeals.

KELLY: "MEDICAL BOTANISTS"

Some American Medical Botanists. Commemorated in Our Botanical Nomenclature. By Howard A. Kelly, M. D., LL. D. Troy, N. Y.: The Southworth Company. 1914.

Just as every individual medical man who is worth his salt has a life of his own, outside the consulting-room and the hospital ward, where he touches elbows with other human beings and human interests, so also has medicine itself a history apart from the test tube and the microscope.

The medical family has included men who have done famous work in other directions. Some of the greatest botanists this country has ever produced, for instance, have been physicians, including the great Asa Gray. "How many are aware," pertinently inquires Doctor Kelly, "that the beautiful fragrant gardenia, universally worn by gentlemen at evening parties, is named after old Dr. Samuel Garden; that wistaria was named for Doctor Wistar, of Germantown; that claytonia, the spring beauty, is called after Doctor Clayton; that mitchella, the partridge-berry, is the namesake of Doctor Mitchell; or that one of the pitcher-plants is named for Doctor Darlington?"

Doctor Kelly knows and revels in these things, because for forty years he has loved and followed the study of botany, not alone for its scientific phases, but as a delightful outdoor hobby. In this book, he has gathered together a nosegay of these flowers, all named for medicine's fathers, and in our leisure moments he goes over them with us in a familiar and informal way, giving us a little of their human history, telling us a little about the noble dead whose hearts and lives they represent.

It is, indeed, a delightful book—would to heaven there were more such written, books that will take us out of our workshops occasionally and into God's sunlight and men's hearts. It should have a double influence: to make us familiar with the background of our profession and proud of it, and to stimulate our own interest in a beautiful and wholesome hobby.

CHOYCE: "SURGERY"

A System of Surgery. Edited by C. C. Choyce, B. Sc., M. D., F. R. C. S. In three volumes. Volume III. With 12 colored plates, 22 black-and-white plates, and 242 illustrations. New York: The Funk and Wagnalls Company. 1914.

The last of the three volumes of this series is devoted to the surgery of the cardiovascular, lymphatic, and nervous systems, the surgery of the respiratory tract, and the surgery of the bones. We already have paid our

respects to the character and desirability of this series, as a whole. We thoroughly believe in concise, comprehensive systems of surgery (and of medicine, too) of this kind, and are glad to see that they seem to be coming into fashion again in place of the long-drawn-out 8- and 10-volume works that have been the vogue during the last ten or twelve years—at least in this country. In England, they do not think the condensed manual has ever lost its place.

In these three volumes will be found all that is necessary for the general surgeon. Every chapter in the last volume, as in the first one is, to the point, lucid, practical, helpful. The practitioner who is obliged, as all practitioners needs are, to do a large amount of his own surgery, will find the book ample for his general requirements.

CRILE AND LOWER: "ANOCI-ASSOCIATION"

Anoci-Association. By Geo. W. Crile, M. D., Professor of Surgery, Western Reserve University, and William E. Lower M. D., Associate Professor of Genito-Urinary Surgery, Western Reserve University. Edited by Amy E. Rowland. Philadelphia and London: W. B. Saunders Company, 1914. Price $3.00.

Whatever may be the ultimate signification of Crile's anoci-association doctrine in its relation to surgical shock, as set forth in this book, it has at least served one exceedingly useful and practical purpose, namely, it has called widespread attention to the esthetic and suggestive element in dealing with our surgical patients. For years we have inexcusably neglected this factor. We have made the avenues of their approach to us almost brutally shocking to their sensibilities. In view of the seriousness of the business upon which these patients come to us, they are in just the condition of mind to be influenced by apparently trivial things. Crile has given the lie to their apparent triviality, and has established the importance of the psychic element upon a purely scientific and materialistic—one had almost said, upon a cold-blooded—basis. And in this, if in nothing else, his experiments and doctrines have justified themselves.

This volume contains, in its first part, a statement of the kinetic theory of shock, and the principle of anoci-association, and in its second part, the application of this kinetic theory to the technique of surgical operations. However, the authors point out that each operator who accepts the fundamental principles must work out his practical application according to his own personal equation and to the environment in which he works.

BROWN: "THE JUNIOR NURSE"

The Junior Nurse. By Charlotte A. Brown R. N., Instructor in the Boston City Hospital; late Superintendent of the Hartford Hospital Training School, Hartford, Conn. Illustrated. Lea and Febiger, Philadelphia and New York. Price $1.50.

The author declares her purpose in the writing of this book to be the furnishing of a guide for the student nurse during the earlier months of her training. Whether there be a real demand for a separate teaching book for this period of a nurse's course, Miss Brown is doubtless more fitted to judge than we are. In any case, time and the event will show. But, even if they should decide against her in this respect, yet will her book, in our humble opinion, not have missed its mark; for, unless we are greatly mistaken, there are many senior nurses to whom it will prove of more practical and helpful value than many books on the subject which it has been our lot to review.

Clearness and simplicity are the keynotes of the book. The subject of bacteria is confined to a short chapter, in which information is given as to their growth, products, and distribution, together with the approved methods for their destruction. An equally brief and practical discussion is given of the subject of dieteties. The unsettled subjects of digestion, assimilation and metabolism are avoided, and a simple classification of diets, with their special application to various disease conditions and repair processes, is substituted. In brief, says the author, the object is to cover those topics which belong to the nurse's junior year, and to withhold those which she will better comprehend in her senior year. She might almost have said, to withhold those which the nurse never does understand, and does not need to understand.

COOKE: "DISEASES OF THE RECTUM"

Diseases of the Rectum and Anus. Edited by A. B Cooke, A. M., M. D. With

215 illustrations in the Text and 21 Full-page Plates, 7 in Colors. Philadelphia: F. A. Davis Company. 1914. Price $5.50.

This work might almost be designated as The American Text Book of Proctology, since it represents the collated views and experiences of a representative group of American specialists in diseases of the rectum and anus. The editor-in-chief is, himself, not a specialist in these diseases, as he frankly confesses. He used to be, but later became interested in the broader field of general surgery. We are of opinion that this does not detract from, but rather adds to, his discriminative fitness for editing such a book as this.

The first sixteen chapters are from Doctor Cooke's own pen. The succeeding chapters are properly credited to their authors. Each author has been accorded perfect freedom in the preparation of his respective chapters; and this gives the book a certain flavor of individuality, which is not only pleasing, but has a distinct value. On the whole, it may be said that the volume represents the most authoritative teaching upon the subject of which it treats.

PROGRESSIVE MEDICINE

Progressive Medicine. A Quarterly Digest. Edited by Hobart Amory Hare M. D. Assisted by Leighton F. Appleman M. D. Volume XVI, Numbers 1, 2 and 3. Philadelphia and New York: Lea and Febiger. 1914. Price $6.00 per annum.

The March number contains a summary of the progress made in surgery of the head and neck and the thorax, infectious diseases, diseases of children, rhinology and laryngology, and otology. The June number is devoted to hernia, surgery of the abdomen, gynecology, diseases of the blood and of the metabolism, diseases of the gland and lymph system, and ophthalmology. The September number treats of diseases of the thorax and its viscera, including heart, lungs and vessels, dermatology and syphilis, obstetrics, and diseases of the nervous system.

A glance at this table of contents will convey to the interested reader an idea of the scope of this excellent digest. The editing is done, as usual, with judgment and discrimination, looking always to the practical, clinical value of the subjects in question to the man in the field. All that is new, and true, and useful finds a place in the summary. This is the threefold test. We really do not see how a doctor can afford not to afford the modest six dollars per annum which brings him such a rich treasure of current discoveries and advances in his chosen science.

EGGLESTON: "PRESCRIPTION WRITING"

Essentials of Prescription Writing. By Cary Eggleston M. D., Instructor in Pharmacology, Cornell University Medical College, New York. Philadelphia and London: W. B. Saunders Company. 1913. Price $1.00.

In some way or other this excellent little book has escaped our reviewing process until so late in the day that a review is now almost a superfluity. We regret the oversight, for we should like to have said at the outset of its career what we hasten to say now, that it is a most clear and concise presentation of the subject, such as will carry the student through it in a sequential manner, and prepare him to construct a grammatic and proper prescription to fill any requirement.

"The work," says the author, "is a crystallization of my experience in teaching the subject, and has been prepared with a view of reducing the burden of the already over-worked student." If the reviewer were to write for a week, he could not any better sum up the character and merit of the book. Even its physical make-up is calculated to reduce the student's burden, both materially and mentally; for it is such that he can easily carry it in his pocket and study it at odd moments, on the street car, for instance, yet bound in such fashion, withal, that it will not readily break or soil.

PRACTICAL MEDICINE SERIES

The Practical Medicine Series. Under the Editorial Charge of Charles L. Mix, A. M., M. D. Volume I. Series 1914. General Medicine. Edited by Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D. Chicago: The Year Book Publishers. Price $1.50.

As would naturally be expected, the largest section of the volume is devoted to a resume of the advances made in biologic medicine and the processes of immunity against bacterial and protozoan infections.

A specially large amount of space is given to a review of tuberculosis and its therapy. Almost equal importance is given to the heart and its collateral organs and functions, which have been the subject of considerable investigation and experimentation in the past year. Diseases of the blood and the blood-making organs come in for a fair share of attention, followed, as a close second, by diseases of metabolism.

These four topics constitute by far the greater scope of research work in medicine during the period covered by the volume, and they all find full representation An exceedingly interesting section is the one which deals with the functions and diseases of the ductless glands.

WALKER: "GENITOURINARY DISEASES"

Surgical Diseases and Injuries of the Genitourinary Organs. By J. W. Thomson Walker, M. B., C. M. (Edin.), F. R. C. S. (Eng.), Hunterian Professor of Surgery and Pathology, Royal College of Surgeons, England. With 24 Color and 21 Black-and-White Plates, and 279 Illustrations in the Text. New York: Funk and Wagnalls Company. 1914. Price $7.00.

The subject is treated entirely from the point of view of the surgeon; not even from that of the genitourinary surgeon, but of the general surgeon; which, I think, gives it an added value to the average reader. A still more important value is derived from the personal note which so clearly characterizes it from beginning to end. "In writing these pages," says the author, in his preface, "I have drawn largely on my own experience, and have referred to many personal cases." In a man of limited experience and untried judgment, of course, that would be matter for apology. But in an author of Dr. Walker's large experience and ripe judgment it is a matter for congratulation to the reader. That is precisely what we want, when such a man writes a book—to sit at his feet and learn of him, as we should if we were privileged to attend his lectures and his clinics.

The author states that he carefully considered the claims of a pathological, as opposed to an anatomical, classification of diseases, but decided in favor of the anatomical, because the work lays no claim to be a purely scientific treatise, but is designed to serve as an aid to clinical work, and anatomical classification is subject to less obscurity than pathological. None the less, the author bluntly declares that he has no sympathy with those who would slur over the pathological science, and give undue prominence to the art of genitourinary surgery. He believes it is impossible to carry out good surgical work on a superficial knowledge of the pathological conditions with which the surgeon has to deal. The pathology given in his book is living pathology—the pathology met with by the surgeon in the operating theatre, and of vital importance to proper treatment.

PRACTICAL MEDICINE SERIES

The Practical Medicine Series. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Edited by Charles L. Mix, A. M., M. D. Volume III, Series 1914. The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, Albert H. Andrews, and William L. Ballenger. Chicago: The Year-Book Publishers. Price $1.50.

During the past year, remarks one of the editors, the ever-interesting subject of glaucoma and its treatment has attracted much attention. In consequence, a corresponding amount of new literature was published in connection with the subject. There can be no doubt, he thinks, that trephining and its allied procedures, especially the sclerotomy of Lagrange, constituted a decided advance in the relief and cure of glaucoma, especially of the chronic forms, and some space is given in this volume to the matter.

Both the Smith-Indian and the Homer Smith procedures in cataract operation are also given attention, although the editor avers that the relative merits of these operations in early adult immature cataract are still *sub judice*.

The conservation of vision, as everyone knows, has received a considerable impetus in the United States in the past year, and this is given representation in the volume.

Equal advancements have been achieved in the surgery of the ear and of the nose and throat, all of which are reflected with faithfulness and discrimination by the editors of these departments.

We again take advantage of the opportunity of commending this entire Practical Medicine Series. Next to a set of bound volumes of your favorite medical journal we know of nothing which presents the "latest-worthwhile" in a form so practical and usable.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

ANSWER TO QUERY 6040.—"Milker's Cramp." Allow me to state that while yet a student in college I had under my observation a case similar to the one described in Query 6040. This occurred in a farmer thirty-four years of age who was milking from ten to eighteen cows twice daily. He was troubled with a sense of numbness in his fingers and hands, accompanied by a prickling sensation and dull ache, which became worse at night. The symptoms gradually became worse, until an uninterrupted night's sleep was seldom enjoyed. Medicinal and mechanical treatment of various kinds was tried, but with no effect. During haying and harvesting his symptoms were greatly exaggerated, no doubt owing to the fact that it was necessary for him to hold a fork-handle tightly in his grasp almost continuously. Upon my advice he bought a milking-machine, which did away with the supposed etiological factor of his trouble, and now, after about three months, he has completely recovered.

The purpose of my writing this is not because I think I have discovered anything new, but because it may suggest to the inquirer a means whereby he can aid his patient without material inconvenience to either. If we live by the practice of medicine, it is to our profit to keep our patients in such health that they can make the necessary wherewithall to pay doctors' bills.

W. B. FILLINGER.

Grand Ledge, Mich.

ANSWER TO QUERY 6040.—Milker's Cramp." I live in a dairy country and have had experience with this trouble. The only cure is to stop milking for all time. Several cases began again after all symptoms had subsided, but these men soon had to quit. Result, no further trouble. The symptoms described are typical. No treatment necessary, except massage for a time.

E. V. ANDERSON.

Woodstock, Ill.

Queries

QUERY 6047.—"Tremors." J. P., Wisconsin, sends the following laconic letter: "The patient, male, 25 years old. About one year ago tremor started in the right arm; now all over the body. My diagnosis is multiple sclerosis. Thinks overwork the cause. Please suggest treatment."

We regret to say that it is impossible to outline a treatment for your patient with the limited knowledge of basal pathological conditions you supply. It *may* be a case of multiple sclerosis. As you are aware, among adults, tremors are met with more frequently in women. In the earlier stages, it is difficult to differentiate between this and hysteria. The general symptoms are those found in all cases of the disease and not explicable from the position of the sclerosis. Again, certain symptoms depend upon locality of the lesions.

The first evidence of the disorder, as a rule, is loss of power, first in one, then in the other *lower* extremity; paresis of the upper extremity appears later. About this time other general symptoms appear; occasionally, they are observed very early in the disorder—tremors, nystagmus, scanning speech, optic-nerve atrophy, and increased reflexes.

It should be remembered that tremor is entirely volitional. When the patient is at rest no abnormal movement is manifested;

the tendon reflexes are increased, as stated, and Babinski's phenomenon may be present. Quite frequently a certain degree of ataxia or incoordination of motion exists, independent from the tremor. There is no wasting of the muscles; occasionally, however, areas of hyperesthesia about the extremities exist; not infrequently the patient complains of tingling or numbness of the limbs. After the disease has lasted some time, a positive diagnosis can be based upon the existence of intention-tremor, increased reflexes, mental deterioration, scanning speech.

The prognosis under such circumstances is very bad and no known remedies can be depended upon to produce favorable results. Arsenic iodide occasionally seems to make some impression. This writer, in one instance, secured temporary improvement by the use of lecithin and calx iodata. Silver iodide has recently been recommended. You may try in this case calx iodata, and lecithin, using the arsenates of iron, quinine, and strychnine, with nuclein, as an alternant. Elimination must be maintained and an easily assimilated dietary ordered. Rest is, of course, essential. If you will make a careful examination of your patient and give us a clear clinical picture we may be able to offer more definite suggestions.

—

QUERY 6048.—"Wartlike Growth on the Scalp." A. A., Texas, tells of a patient who has a wartlike growth in the hair on his scalp, but he is opposed to the use of the knife. The irregular oval growth is about 1 inch in its longest direction, and 1-2 inch across, with an elevation of 1-4 inch. The base is somewhat constricted, and the body of cauliflower structure and freely movable. It has been coming on for many years.

We regret that you did not give us a clearer idea of the character of the wartlike growth. Under the circumstances, we hesitate to recommend either a dermal solvent or a dermal caustic.

The dermal caustic is particularly intended to destroy bloodfilled growths. Many of these socalled warts of cauliflower-like structure are bloodfilled. You do not state the color of the body of the growth. Is it pink, deep red or white? Does it bleed easily? How old is the patient? What treatment, if any, has been tried?

The dermal solvent (salicylic acid, lactic acid, and collodion) removes warts rapidly, but, as we have pointed out frequently, the treatment which will prove effective in one case may fail entirely in another.

As a matter of fact, there is a difference between the common warts so frequently seen on the hands and the papillomatous growths which appear on the head and other parts of the body. When observed in older people, the latter may be flat at the base, later assume a darker color and become slightly papillomatous or covered with a blackish, greasy scale. It is not always easy to differentiate such growths from slightly elevated moles; in fact, these may be clinically described as "warty moles."

Verruca digitata is a variety most commonly observed on the scalp. It is characterized, as a rule, by clefts or digitations extending nearly or quite down to the base. The surface is hard and horny; the lower portion is soft. They bleed readily, much more so than common warts. In size they vary from that of a split pea to a dime, and they are elevated one or more lines.

Perhaps the best treatment is, to apply a saturated alcoholic solution of salicylic acid once or twice daily, scraping away the softened debris from time to time. Lactic acid, applied scantily to several points several times daily, acts efficiently and without much irritation. An excellent plan is, to curette under ethyl-chloride anesthesia, then touch the base with pure carbolic acid or silver nitrate. Electrolysis may be used. This writer has secured excellent results with the high-frequency current (glass-point electrode).

We suggest that before instituting treatment you describe conditions fully, and we shall try to advise you more positively.

—

QUERY 6049.—"Poisoning from Adulterated Liquors and Potassium Cyanide." M. C. R., Canada, submits a list of questions, herewith reproduced.

"Some time ago 10 Russian laborers purchased whisky at a small liquor store, which caused the death of 3, while the other 7 recovered. Analysis of some of the whisky showed it to contain wood-alcohol and also anisette. Please say what anisette is and from what source it is derived; give fatal dose, symptoms, and treatment; give also the symptoms it produces in nonfatal doses.

"This appears to be put into a cheapgrade of liquor for the purpose of giving the imbiber the feeling of a much higher percentage of liquors, thus giving a larger profit to the dealer who sells it. Does it

really produce such an effect? This affair is much discussed at present, and, as you know, the people expect the doctor to know everything. I should like to get some information about the matter.

"What other 'dope' is used in low-percentage cheap liquors to produce the effect of strong liquor; that is to produce intoxication in an equally quick manner?

"Give also fatal dose, symptoms, and usual duration of symptoms before death is produced from potassium cyanide, if taken in one dose by mouth, also treatment. Also state fatal dose, symptoms, duration of symptoms et cetera, provided the potassium cyanide is administered by the subcutaneous method.

"I have no book on toxicology and wish information regarding these, so that, should I be called upon to treat for either, I may be able to administer the best treatment, and at once."

We are not familiar with the methods of the manufacturers of cheap intoxicants. Cocculus indicus, as you may know, has been used by some brewers, and distillers have various trade formulas for producing imitation whisky and liquors. Anisette, the writer believes, is a solution of oil of anise in alcohol. Absinthe, as you know, is a distillate of wormwood (artemisia absinthium). In France a milder preparation is known as "anisette," which is consumed largely by women.

Absinthe affects the central nervous system, there being a striking resemblance between its toxic effects and a paroxysm of ideopathic epilepsy, twitching of the muscles of the face, clonic and tetanic spasms of the muscles of the trunk and extremities, profuse salivation, involuntary voiding of urine, followed by a period of unconsciousness. Absinthe (and presumably anisette) surpasses in perniciousness the more common beverages.

In fatal cases of absinthe poisoning there is abolishment of the reflexes, anuria, arrest of respiration and of cardiac action. Lavage of the stomach should be resorted to, even if the respiration, cardiac action and reflexes apparently are abolished.

Potassium-cyanide poisoning is evidenced by symptoms similar to those present in hydrocyanic-acid poisoning. The prompt administration of alkalis is advised to delay decomposition of the salt by the gastric juice. The stomach and intestinal canal should be evacuated, and arterial stimulants — ammonia, caffeine, coffee, et cetera—be administered. Cold affusions to the spine and friction of the extremities are indicated. The exhibition of 3 grains of potassium cyanide has killed. Unfortunately, death occurs very quickly in these cases, and help, to be effective, must be very quickly rendered.

In cases of potassium-cyanide or hydrocyanic-acid poisoning, the vomitus has a distinctive odor, and, as already pointed out, where a toxic dose is taken, death may occur in a few minutes. Sudden and complete insensibility occurs; the skin is cold and clammy, the extremities are relaxed, the respiration is slow and convulsive, pulse is feeble or imperceptible, face cyanosed. The symptoms caused by the injection of a solution of potassium cyanide would be similar to those which would follow the ingestion of the drug, but, of course, would manifest themselves very rapidly.

—

QUERY 6050.—"Exophthalmic Goiter." P. F. C., Missouri, wants information regarding the symptoms and treatment of exophthalmic goiter, and asks: "Do we ever have goiter symptoms without any perceptible enlargement of the thyroid gland?"

It is a well-known fact that Graves's disease may be present in a patient who has neither exophthalmos nor goiter; the so-called "goiter-heart" being the result of thyroid excess, that is, a thyrotoxicated heart. On the other hand, the thyroid gland sometimes hypertrophies under circumstances which may be regarded as physiological, the enlargement disappearing as soon as the conditions with which they are associated pass away.

In this writer's opinion, the cases of Graves's disease in which both exophthalmos and goiter are absent are very few and far between. In the earlier stages, both may be present, but quite inconspicuous. The most invariable symptom probably is persistent tachycardia. When this is present in a patient in whom tubercle can be excluded, a very careful search should be made for other evidences of the disease.

It is a curious and interesting fact that even the subjects of definite thyroid insufficiency suffer from occasional outbursts of thyroid excess. An extremely interesting article upon this insufficiently understood subject appears in the "Practitioners' Encyclopedia of Medicine and Surgery," by J. Keoch Murphy.

QUERY 6051.—"Ear Noises in the Aged." R. D. B., Oregon, wants advice regarding a woman patient of 65, a very stout woman, who has lived in the West all her life and has broken in wild horses, buckled a pistol around her, taken her rifle, ridden the range, fought Indians, in fact, has been a "wonderful old girl," and her only trouble now is a constant roaring in her left ear and a terrible throbbing of the veins in the neck. Her heart is a bit weak, quite regular, but the sound is full and strong. When the noises in head are relieved she looks like a woman of 50, and says she is as well as ever in life. The doctor continues:

"I have given her nothing at all, but put her off till I hear from you. Can she be relieved of this noise, or not? Please tell if a cure can be had. She is of a very hardy, long-life race. Her mother is now living and is hearty and well at 104."

We very much regret that we cannot make any definite suggestions for your aged patient. It is more than likely that the roaring in the ear and congestion of veins are consequent upon an atheromatous condition of her arteries. Examine her carefully for hypertrophy of the heart, especially of the left ventricle. This condition manifests itself by increased apex beat, accentuated second aortic sounds, and increase of the limits of percussion of cardiac dulness.

It is hardly likely that you have to do with an aneurism of the arch, which, by pressure upon the left innominate vein, causes engorgement and edema in the region of the left side of the head and neck and not infrequently paralysis of the left vocal cord. Should this be the condition, you would find pulsation in the jugular fossa, marked dulness to the left of the sternum in the first intercostal space, inequality in the size of the pulse of the arteries of head and arm of one-half the body.

You do not state that any deterioration in the patient's hearing or otosclerosis has occurred. Roaring in the ear may be the source of great discomfort and may exist for many years; gradually, however, hearing is impaired and ultimately deafness becomes complete. Coincidentally the distressing factors cease.

In otosclerosis, tinnitus is referred to the head, and in chronic catarrhal otitis, the patient says the noise is distinctly in the ears. One ear is usually affected first, and later both of them. As a rule, the disorder progresses much more rapidly in the second ear than in the first one affected, while noises are much more noticeable after fatigue, mental or physical. As you speak of a marked throbbing of the veins in the neck (you do not say on which side) we are inclined to believe that serious sclerosis or other changes have occurred. Conditions may be more serious than you think.

Make a very thorough examination, state distinctly the character of the heart sounds, the rate and equality of the pulse. See whether you can detect any murmur at the base of the neck. The ear, of course, should be examined carefully with reflected light, and the condition of the tympanum determined. It might be well to take the blood pressure. Also you might send a specimen of her urine (4 ounces from the 24-hour output, stating total quantity voided) to a pathologist, for examination.

—

QUERY 6052.—"Hemorrhage in Typhoid Fever." J. A. P., North Dakota, writes as follows:

"Do you find it advisable to stop the bowel movements in typhoid fever in case of hemorrhages? If so, when do you think you would stop the bowel movements? For how long a period is it advisable to have the evacuations checked? What, in your experience, have you found the best remedy for stopping bowel movements, and what do you give for again opening them? I have an epidemic of typhoid fever here and I would like to know what is the cost of examining the water of wells."

It is generally agreed that hemorrhage will not occur (or at least so rarely as to become a negligible quantity) if correct treatment is instituted and maintained throughout an attack of typhoid fever. This writer has been in active practice for a great many years, has treated several hundred cases of typhoid fever, and has had but one hemorrhage occur, and that patient died within twelve hours. Doctor Abbott, who in the early years of his practice covered a very extensive territory, had to contend with many cases of typhoid fever, and he has had a similar experience.

The old idea of giving morphine to confine the bowels was based upon an erroneous conception of the pathological condition.

It is well to remember that in certain parts of the country the character of the disease has changed somewhat during the past decade. In the South and East, ten or fifteen years ago, constipation was rarely ob-

served in typhoid patients; on the other hand, typical "pea-soup stools" were voided frequently. At the same time, practicians in the North and West reported constipation as being present in a very large proportion of their cases, and this condition is now very generally reported.

Hemorrhage is not likely to occur if free elimination is maintained and localized congestion relieved; but, where we are confronted with the condition, we should give atropine (hypodermically), a small dose of castor oil followed by a laxative saline, and then continue to give the sulphocarbolates and bismuth. Recently brilliant results have been obtained in intestinal hemorrhage by subcutaneous injections of emetine hydrochloride, ½ to 1 grain.

Of course, a severe hemorrhage occurring, as it does, when the patient's vitality is more or less exhausted is a very serious matter and every effort must be made to sustain the strength of the individual.

We must remember that the bowel lesions, even in very severe cases, may be trivial, and that the disease is really a septicemia, the bacillus having been found throughout the body. The physician whose conception of enteric fever is limited to an ulceration of Peyer's patches and solitary glands of the ileum can hardly institute effective therapeutic procedures. If thorough elimination and intestinal cleanliness is maintained and the natural forces of resistance are stimulated, we shall not have extensive ulceration of the lymphoid tissue.

Severe and persistent diarrhea, in this writer's estimation, is an evidence of extensive ulceration; and this condition, with meteorism, is most likely to occur in injudiciously dieted and treated patients.

It is necessary, of course, to exclude the hemorrhagic or toxic form of the disease. This is extremely rare and almost always fatal. In this variety, bleeding from the gums, nose and bowels occurs, and purpuric spots appear on the skin.

In these days, perforation is said to occur in about 3 percent. of all hospital cases. Frequent loss of small amounts of blood over several days is regarded as more serious than a single copious hemorrhage. In private practice, especially where modern methods of treatment are followed, hemorrhage, as we have already stated, is very rarely encountered.

Should you be unfortunate enough to be called to attend a patient having hemorrhages, do not attempt to give opiates or in any way limit the bowel movements. If there are profuse and frequent stools, the condition probably would yield (together with the hemorrhage) to the treatment outlined; that is, atropine or emetine, hypodermically, followed by the sulphocarbolates, and castor-oil, or laxative salines in small repeated doses. Bismuth may advantageously be added to the sulphocarbolates.

The patient must, of course, be very carefully dieted, also nuclein should be given, in 30-minim doses, twice daily.

—

QUERY 6053. — "Alopecia, Neurasthenic Exhaustion." J. A. H., Massachusetts, writes:

"Will you kindly give me full directions for treating alopecia? The victim's hair is getting very thin on the top of his head. There is almost constant itching of the scalp and if scalp is combed too hard a scale soon appears, these scales being quite elevated and of good size. There is no fever or any constitutional poison from diseases—perhaps the blood and general health should be kept in mind always, but it seems that one should use a safe antiseptic lotion and also something that would promote growth of hair. Will you kindly map out full directions for me, as I have just finished a good trial of this formula, viz.:

Hydrarg. chlor. Cor	grs. 4
Euresol	drs. 2
Spir. formicarum	oz. 1
Olei ricini	drs. 2 1-2
Alcoholis, 70 percent	ozs. 8

"This, applied once a day, has not given any satisfaction. It stops the itching for a few days only.

"Also, what can you advise for a good, true nerve tonic—one that will be a 'nerve power' in every way—for a true neurasthenic; overwork, worry, nerve exhaustion, easily tired, fear, lonesomeness, etc., etc.?"

Alopecia often requires to be very carefully handled. The treatment which will prove efficacious in one case may fail in another. What about systemic conditions? Does your patient use tobacco or any alcoholic beverage to any extent? The following course, perhaps, will be as good as any we can suggest:

Wash the head thoroughly with a good tarry soap three times a week, then apply to the affected spots some of the sulphur-bearing shale derivatives (ichthyol, carbenzol, lignol are representative types), apply-

ing the fluid with a cotton swab and rubbing it in lightly. The next morning cleanse the spots with a little warm boric-acid solution, dry, and then apply the following lotion: Mercury bichloride, 5 grains; resorcin, 5 drams; boric-acid, 5 drams; glycerin, 4 fluid-ounces; alcohol, enough to make 8 ounces. Reapply this lotion at night, the soap and shale derivative being used only three times a week at first, then every third or fourth night.

If this procedure does not prove effective within a month or so, leave the scalp alone for two or three days, and then send two or three of the hairs plucked from the scalp itself, placed between two glass slides, to a pathologist for examination. You might with advantage prescribe the arsenates with nuclein, while at the same time making sure to maintain thorough elimination and watching the urine carefully.

The faradic current has proven most efficacious in this writer's hands. A most excellent formula is this: Tincture of cantharides, 2 drams; tincture of capsicum, 2 drams; castor-oil, 15 drops; oil of rose geranium, q. s.; alcohol, 8 ounces. Rub into the scalp at bedtime. We should alternate this with No. 2: Quinine bisulphate, 30 grains; tincture of myrrh, 4 drams; tincture of cantharides, 1 dram; bay rum to make 4 ounces.

Use the No. 1 for one week, then the No. 2 every other night for ten days, then return to the No. 1. Suppose you try these, after treating along the lines first suggested, for fourteen or fifteen days, or, if you desire to be quite sure of what you are doing, send the scraping first.

It might be well, also, to send a specimen of the urine (4 ounces from the 24-hour output, stating total quantity). Frequently there is a causative disorder of the body-chemistry.

—

QUERY 6054.—Branchial Fistula." K. H. H., Virginia, reports the following:

"Woman, married, age 25 years, mother of one child; health fairly good. There is an opening in her neck on the right side, just above the notch in the collar-bone. The diameter of the opening is about the size of No. 60 or 70 thread. It was there at the birth, and emits some yellow fluid all the time. When the flow is on, it swells up and extends up the large artery. It is very tender to the jaw and gives her much pain, with a choking sensation, and runs inside of the throat. It has affected the right eye. If the opening gets stopped up, it will heal. It has healed twice or three times, but it still runs at times. Her record is clear of tainted blood, so far as I can ascertain. Her mother attributed it to a mark caused by a dog biting a cat on the throat, which caused an opening through which it breathed. What is it? What is the best treatment? Can someone give a name for it, and the cause?"

In this matter you have to do with a branchial fistula. This may be incomplete external, i. e., with an outer opening only, or complete—outer and inner openings. Such congenital fistulas do not always cause symptoms and may not be discovered until distention and irritation with mucous hyaline or mucopurulent discharge calls attention to them. They frequently escape attention up to adult life. After forming a permanent fistulous opening, they remain as cordlike or slightly indurated tracts leading inward. Their location is between the anterior borders of the sternomastoid muscles.

Median fistulas occupy the median position in front of the trachea and are remnants of the thyroglossal duct. Their location helps to distinguish them from other diseases causing fistulas, i. e., hytadid, lymphatic or retention-cyst sinuses.

The orifice of a branchial fistula is often a very minute point, difficult to see. Small round depressions with central conical orifices have been noted, but more often fissured orifices have valvular, lip-shaped outlets. The finest bristle-like probe or sound may be needed to detect them.

Almost always the insertion of a probe starts a spasmodic cough.

Treatment is unsatisfactory, partial removal leading to recurrence or cyst formation. Careful attention to drainage and cleansing may be followed by complete arrest of the discharge. The lumen, though not obliterated, shrinks so that little or no trouble is caused. Treatment by the injection of caustics proves a failure in most cases, and only the most skilful surgeon succeeds in extirpating these fistulas by an operation, though this, of course, remains the most scientific curative resource. For operative technic, see Keen's or other modern work on surgery.

The American Journal of

CLINICAL MEDICINE

Dependable Therapeutic Fact for Daily Use

DECEMBER MCMXIV

The American Journal of Clinical Medicine

A MONTHLY JOURNAL

DEVOTED TO ACCURACY, DEPENDABILITY AND HONESTY IN EVERY DEPARTMENT OF MEDICINE AND TO THE SAFEGUARDING OF THE DOCTOR

GENERAL EDITORIAL STAFF:

W. C. ABBOTT W. F. WAUGH A. S. BURDICK RICHARD SLEE H. J. ACHARD

PUBLISHED BY THE AMERICAN JOURNAL OF CLINICAL MEDICINE, Inc.

ENTERED AS SECOND-CLASS MATTER MARCH 31, 1906, AT THE POST OFFICE AT CHICAGO, ILL., UNDER ACT OF MARCH 3, 1879.

Subscription Rates.—To any part of the United States, Canada and Mexico $2.00 per year, postage free, single copies twenty cents; to all other countries an additional charge of $1.00 is made for postage. N. B.—Make all checks and remittances for subscriptions and renewals payable to THE AMERICAN JOURNAL OF CLINICAL MEDICINE, adding 10 cents for exchange. **Three years for five dollars.**

Address Changes.—Notify us promptly of any change of address mentioning both old and new addresses. We cannot hold ourselves responsible for copies of CLINICAL MEDICINE sent to former addresses, unless we are notified as above. If you fail to receive your copies of CLINICAL MEDICINE notify us at once, and we will supply you if we can. Complaints covering more than three months usually cannot be honored.

Discontinuances and Renewals.—According to Post-Office regulations, subscriptions must be expressly renewed within one year of the term for which they are paid. When this paragraph is marked and the journal comes to you in an "unusual wrapper," it means that your subscription expires with that issue and is a request for you to send in your renewal at once. Renewal blank is enclosed for this purpose. **Kindly always renew promptly.**

FOR EVERY NEW SUBSCRIPTION YOU CAN SEND US YOUR OWN RENEWAL WILL BE ADVANCED ONE YEAR

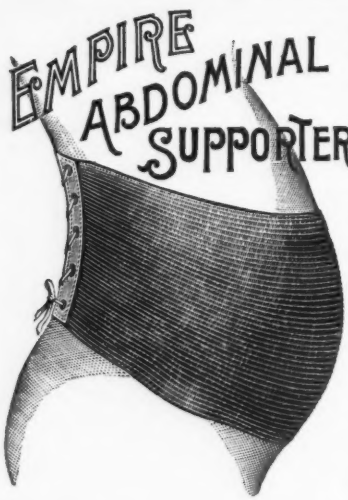
EDITORIAL DEPARTMENT

LEADING ARTICLES

WHAT OTHERS ARE DOING

MISCELLANEOUS ARTICLES

SPECIAL LEADERS FOR JANUARY



is superior to all others for the following reasons:

1st. It adapts itself to every movement of the body, giving strong and even support.

2nd. It produces warmth without irritation or sweating, as it is perfectly ventilated.

3rd. In pregnancy, corpulency, tumors or other cases of enlargement of abdomen, it supports weight of body from the backbone, relieving the sinews of their overwork.

4th. Its easy appliance (lace and draw on over head or feet).

5th. It is cheap, durable; it can be washed when soiled, proper care being taken to cleanse in lukewarm water and dry in shade.

In ordering give largest measure of the abdomen.

PRICES

8	inches	wide			$2.50
11	"	"			3.00
8	"	"	Silk Finish		3.50
11	"	"	"	"	4.50
8	"	"	Double Rubber		3.00
10	"	"	"	"	3.50
12	"	"	"	"	4.00

The Empire Elastic Bandage

Specially Adapted for Varicose Veins

We invite the attention of the medical and surgical profession to the various merits combined in our bandages.

1st. **Its Porosity.**—The greatest in the "EMPIRE." It never causes itching, rash or ulceration under the bandage.

2nd. **Its Elasticity,** which will enable the surgeon or nurse to put it on at any required tension, and which will follow a swelling up or down, as the case may be, a feature unknown to any other bandage.

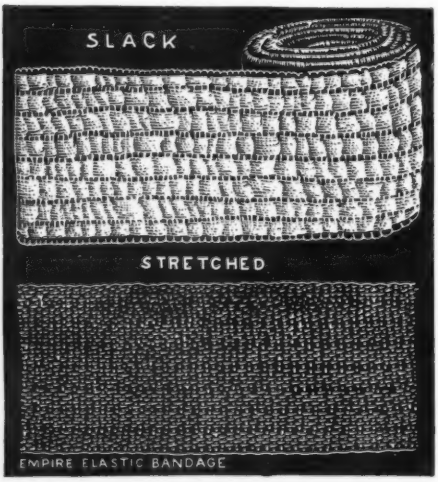
3rd. **Its Absorbent Properties.**—Greatest in the Empire.

4th. **Its Easy Application** to any part of the body, not being necessary to fold over, as with other bandages, as it follows itself with equal uniformity around any part of the abdomen.

5th. **Its Self-Holding Qualities.**—No bother with pins, needles and thread, or string, so tiresome to surgeons, as simply tucking the end under the last fold insures its permanent stay until its removal for purpose of cleanliness.

6th. The only bandage that is **Superior to the Elastic Stocking** for varicose veins.

Send $1 for 3-inch by 5-yard bandage on approval



The Empire Umbilical Truss

Is an Abdominal Supporter with Button Inserted at Navel

Is made of the same material and possesses the same merits as the Empire Elastic Bandage and Empire Abdominal Supporters, and it is pronounced by all who have seen it to be the best in the world. **All our goods are sent free by mail upon receipt of price, and money refunded if not satisfactory.**

PRICES

Infant, hard pad	$1.25	Infant, soft pad	$1.50
Children, hard pad	2.50	Children, soft pad	3.00
Adult, hard pad	4.00	Adult, soft pad	5.00

ALL ABOVE PRICES ARE NET TO PHYSICIANS

MANUFACTURED BY

EMPIRE MFG. CO., 7 Spring St., Lockport, N. Y., U.S.A.

Advertisers' News Notes

CONSTIPATION in infants is practically always a matter of diet. One may even go a step further and say that in ninety-nine cases out of a hundred it is due to one of two common errors in feeding, viz., either too much fat or too much starch. The first of these troubles is, of course, easily remedied in the bottle-fed baby by reducing the percentage of cream in the mixture. The second is adjusted by using an artificial food-modifier which contains no starch, but the normal carbo-hydrates of maltose and dextrin, which supply energy to the intestinal walls without imposing any burden upon the infantile digestive functions. Babies that are fed upon Mellin's Food rarely suffer from either constipation or diarrhea, and when they do, a little intelligent adjustment of the relative proportions of fat in the milk and of carbohydrates in the modifier very quickly solves the difficulty. The Mellin's Food Company have recently issued an excellent little pamphlet on "Constipation in Infants," which it will pay the doctor to procure and read. It is yours for the asking.

IMITATION is the sincerest form of flattery. And substitution is the tacit admission that the article for which substitution is made is the best of its kind. Of course there is always some reason for substituting. Usually it is because of some advantage to the seller; but not always. In the case of cod liver oil, for instance, the crux of substitution lay with the consumer. If cod liver oil were palatable, there would never have been any attempt at substitution. Nobody has ever asserted that any substitute is equal to the oil itself. And the question of price has never entered into the matter. Hence, if the objection to the taste of cod liver oil can be removed, the only reason for substitution is removed. In Budwell's Emulsion, this is accomplished, and we have a palatable, easily-digested fifty-percent emulsion of the best Norway oil, as tasteless as any preparation on the market, without leaving out the oil. It is combined with arsenic, calcium, manganese, guiacol and creosote carbonate, giving it a high value as a tissue builder.

TO RELIEVE pain without at the same time inflicting any mischievous effects upon our patient—that has been the problem of medicine and surgery since medicine and surgery had any being. Unfortunately,

there is no indirect method of relieving pain —that is to say, if the pain is sufficiently severe to call for immediate relief. We are obliged to attack it directly, through the sensory nerve mechanism; and this is what makes the problem a precarious one. The woods are full of alleged anodynes, purporting to accomplish the purpose efficiently and safely; but their allegations do not always mature. Many are called, but few are chosen. Papine is one of the few. Its effect is prompt and positive and it exerts a minimum of evil effect—all of which entitles it to a leading rank among pain-relieving agents.

How often does the doctor wish to order a quickly-prepared, easily-digested, toothsome dish for his sick and convalescent patients. And how often does he find himself at a loss to know just what to order. Easily prepared foods there are aplenty, to be sure, but not many that fulfill the other requirements and are at the same time nutritious. At such times Hemo, made by the Thompson's Malted Milk Company, is most opportune. It combines the blood-making elements found in spinach, lean beef, etc., creating a healthful condition of the blood, and replacing the worn-out blood-cells with new, vigorous cells. Hemo is prepared under the most sanitary conditions, and is as wholesome as it is nourishing. The water used in its making is the famous Waukesha water. Try this food, doctor, in your cases of anemia, fevers and convalescence.

GEO. L. SERVOSS, in the *Physicians' Drug News*, describes what he considers to be the ideal and practical style of office for the country practitioner. He thinks that, while he should have well-furnished rooms, he should not overdo the matter. His reception room should be as pleasant as art can make it. The furniture of the consultation room, as of the reception room, should be good. The medical library should be in evidence in this room, books being kept, by preference, in sectional cases. The operating table should be one of the chief pieces of furniture; the instruments should be in an instrument cabinet. Just enough, and no more, chairs should be in the consultation room. No physician can afford to neglect the important psychological influence of all that goes to make up his entourage. Really, the best way to compass the matter is to let some reputable and experienced concern, like the W. D. Allison Company, furnish your office for you—in consultation with you, of course. They will furnish you exactly what you want, and will do it *right* in every respect.

EVEN WHEN the present writer was a medical student, Fellows' Syrup was a tried and trustworthy stand-by. That was in England, almost a quarter of a century ago. The writer recalls that it was recommended in the lectures and dispensed in the dispensary of old St. Bartholomew's Hospital school as often and as confidently as the medicines of the British Pharma-

IT IS NOW pretty well demonstrated that the enteroptosis of children and adults is but a phase—a structural fixing, so to speak, of a general functional habit of ptosis. We are getting away (and rightly so) from the provincial habit of regarding these structural organic deviations as isolated entities, and are coming more and more to recognize their invariable relation to the function-complex of the body; the habitus is becoming a definite and definable quantity in etiology, and even in pathology. No treatment of any form of ptosis, therefore, can be scientific or rational which does not take account of this habitus and provide against it. This is what gives the efficiency and reputation to the now famous Storm binders, that they are constructed with an intelligent regard to the functional exigencies of the case, and designed to prevent and to correct the postural errors which compromise the anatomy and function of the viscera. As long as they display this rationality, they will continue to be as popular with the scientific physician as they are at this moment.

I NOT only prescribe Abbott's Saline Laxative, but use it myself. While I consider it quite expensive, I continue to use it because I have a good opinion of your drugs. I use a number and could not do without them. I refer especially to Dosimetric Trinity granules, Calcidin, and Abbott's Saline Laxative. I have saved more than one case of pneumonia by the judicious use of the Trinity.

T. H. CULHANE, M. D.
Rockford, Ill.

EVERY physician recognizes that the real crises of the acute infectious diseases and exanthemata is the period of convalescence, when the exhausted forces and weakened resistance of the patient render him an easy prey to chronic constitutional and neurotic disorders. We are then confronted with the necessity of giving these patients some hemopoietic tonic which at the same time will not disturb the digestion or the metabolism. In such cases Gray's Glycerine Tonic Compound will be found a very suitable reconstructive tonic, and it is gratifying to see the prompt improvement in appetite and general nutrition that follows its administration. It is an excellent plan to prescribe this remedy in combination with Fowler's solution in the proportion, say, of two drams of the latter to eight ounces of Gray, giving one or two teaspoonfuls, according to age, after meals. One can almost see the red blood cells increasing in number and hemoglobin under this treatment.

IN DEALING with a case of poliomyelitis, of one thing we may be quite sure, namely, that when the final inventory of neuronic damage is taken there will always be a certain amount of residual paralysis. Sooner

or later these children always become subjects for orthopedics. Thank heaven, we are no longer obliged to weigh down their little bodies and limbs with masses of heavy metal or to cumber their wasted muscles with clumsy cagework, as in the old days. Modern invention and skill has shown us how to give our little patients adequate support without these disadvantages. The Philo Burt Manufacturing Company, of Jamestown, N. Y., makes an excellent spinal appliance which removes the pressure from the spinal nerve trunks, thus protecting the cord and its structures from injury and preventing adhesions from forming, with very little more imposition of weight than an ordinary article of clothing. Ask for their Spinal Appliance No. 1. It is a triumph in orthopedic mechanics.

THE history of the development of analgesics has, in the main, been that of a continuous and persistent fight against opium and opiates. Not so very long ago no physician ever dreamed of the possibility of relieving pain of any degree of severity except with some form or other of opium or its derivatives. But at last the crusade of modern pharmacology against opium began to bear fruit, and adequate substitutes began to be available. Among these, none has justified itself more completely than Phenalgin. Indeed, the promoters of Phenalgin take to themselves no little pride (and justly) for the part they have played in helping to throw off the thraldom to opium. They "point with pride" to the significant fact that, in spite of the wide-spread use of Phenalgin during the past eighteen years, there is not a single authenticated case of serious ill effects from this remedy when employed remedially. It is a record to be proud of. And, what is more to the point, it is a record to inspire confidence in Phenalgin.

THERE has been a steady improvement and simplification in the matter of hypodermic syringes. The old-fashioned instrument, with its numerous packing washers, usually of leather, that had an annoying habit of drying out and leaving the syringe without suction or propulsion, gave way to the all-metal type, in which all the washers employed as packing were obliterated except the one between the needle and the barrel. This, in turn, was replaced by the all-glass syringe, which did away with all washers, and allowed of a practically tight joint between needle and barrel by cohesion. Still, there were many points about the instrument which left room for improvement —notably in the matter of piston leakage. All of these difficulties have now been overcome, and what appears to be the ideal hypodermic syringe is in our hands—or may be, if we will but stretch out our hand and take it. This, of course, is figuratively speaking. What we actually have to do is to send an order to the Kimble-Durand Glass Co., of Chicago, for one of their Kadeco syringes, or order it through our

dealer. Having obtained one, our hypodermic troubles are over.

How many more times are we to have the satisfaction of seeing the principles and ideas for which we contended in their early, unpopular days, against ridicule and opposition, at last win recognition and triumphant vindication? For years we have been insisting upon the curative value of emetine in amebic dysentery. Now come such men as Leonard Rogers, of Calcutta, and Low, of the London School of Tropical Medicine, and announce the "discovery" that a patient who has suffered for months, and even for years, from this disease may be permanently cured by hypodermic injections of emetine hydrochloride; and Chauffard and Dopter and Lukis verify the "discovery." We might indulge in a few variations on the old come-back, "I told you so." Well, well, never mind. We are only too glad to see that the value of emetine in this great scourge is now, at last, being universally confessed. The CLINIC family are that much ahead of the game; they realized it long ago. The main thing is that we are now able to recognize cases of amebic dysentery more clearly than we did a few years ago, and when we recognize them we shall use our emetine with a fresh inspiration and confidence.

IMPORTANT as is the matter of intestinal elimination in the preservation of the health balance, renal elimination is a hundred-fold more important. For, while the waste-matter of the intestines may, in the main, be regarded as residual ash, that of the kidneys represents the highly toxic by-products of metabolism. Absence of bowel movement for a day or two, while it is not a very desirable state of affairs, can hardly be considered, in itself, a dangerous one; but failure to void the urine for that length of time will most assuredly bring about coma and death. However, the ideal eliminant is that which provides for both intestinal and renal emergencies; and such an eliminant is to be found in Cystogen-Aperient, which also serves the further purpose of disinfecting the intestinal and urinary tracts. Cystogen-Aperient may therefore be said to be, par excellence, the eliminant for systemic toxic conditions, where it is desired to drain the body of toxines and effete products, and to prevent re-absorption.

ICTHYOL is as successful in the legal field as it is in the medical. It has gained another victory over would-be imitators and infringers. In September, 1912, the Supreme Court of Berlin restrained the Lowenthal Company from holding out its product as a substitute of equal value with ichthyol, or claiming that its chemical and physical properties are similar to those of ichthyol. The Lowenthal firm appealed the case, and the Supreme Court of Judicature, having heard the appeal, dismissed it, rul-

ing that the incorrectness of the firm's statements had been proven. It is interesting, in connection with this case, to note the impartial attitude taken by the scientists who were assigned to an investigation of the technical matters at issue. Even the expert who was engaged on behalf of the accused firm arrived at the conclusion that the total content of sulphur in the two preparations was different, and that the content of sulphidic sulphur also differed. Another argument in favor of court-appointed experts, in preference to the hiring of experts by the opposing sides.

"THE EMDEN," says an official of the Goodyear Tire and Rubber Co., "probably cost the rubber industry in America a million dollars, directly and indirectly, and had she been allowed to continue to roam the Indian Ocean indefinitely she would have cost it much more. The United States gets most of its crude rubber supply from London. The effect of the Emden's activities was noticeable. Insurance rates became almost prohibitive. Crude rubber prices advanced steadily until they were 12c a pound above normal. Since the sinking of the commerce destroyer, rubber prices have been gradually returning, the markets and insurance have eased, and it is probable that conditions will become even more favorable than they are now."

A PATIENT of mine, who is in the habit of taking a certain cathartic pill every once in a while to overcome a little tendency to constipation, said to me the other day, "That pill I take is all right, about the best I have found, but somehow or other it doesn't seem to *quite* clean me out as I feel I ought to be." Of course I told him that *no* cathartic pill, taken at night, will of itself satisfactorily clean out the primæ viæ; that whatever form of cathartic one takes over night, he should *always* follow it up in the morning with a good saline laxative, which will do the cleaning out business thoroughly. How few people recognize this—how few doctors, even. Never should a pill cathartic be allowed to remain unaided by the morning saline. A good saline is often sufficient of itself, without any other cathartic. But any other cathartic should be followed in a few hours by a saline. The ideal catharsis is obtained by taking a bile-in and calomel combination at bedtime, and following it in the morning, before breakfast with a full dose of Abbott's Saline Laxative.

IN spite of our friends the mathematicians, two and two do not always make four. Chemists and clinicians know that medicinal agents, of given virtue and value added together, do not always yield the net sum of those virtues and values. Fortunately, however, this anomaly sometimes works out advantageously, and occasionally the therapeutic two and two make more than four. Sulphosalicylic acid, for instance, and hexamethylentetramin, are both of them thera-

peutic agents of well-established value in urogenital infections. By adding them together, in chemical combination, Riedel & Company have been able to evolve a third definite substance, which they have named "Hexalet," having all the therapeutic properties of the two, and some advantages which neither possesses alone.

Hexalet is markedly sedative, due to the sulphosalicylic acid; strongly bactericidal, due to both the formaldehyde and to the acid; and distinctly astringent, due to the sulpho element in the drug. It may be given for long periods without unpleasant effects, and does not cause nephritis. In all cases of bladder infection, gonococcal infection of the posterior urethra, pyelitis and pyelonephritis, and uric acid deposits, it surpasses all the usual antiseptic remedies. It is clearly a case of two and two making more than four.

PROF. V. ZEISSL, writing in *Wiener Klinische Rundschau*, says that when combining salvarsan and mercury he prefers as internal antispyhlitic mercurial salt the cholate of mercury, which has come into the therapeutic armamentarium under the name of Mergal.

Mergal is indicated in all forms of syphilis and combines in itself a perfectly discreet, convenient method of treatment with energetic action, free from undesired by-effects.

As now, like before, the chronic intermittent method of treatment, according to Fournier-Neisser's method, presents the best chance for a real cure of syphilism the internal administration of mercury in the form of Mergal has been recommended by eminent authors in this country and abroad.

The fact that in a notable percentage of cases which were treated properly with Mergal the Wassermann reaction has become negative, proves conclusively that in this product we possess an antisyphilitic remedy of full activity.

THE doctor who essays to go through the next few months without a supply of Bulgarian bacillus is worse than a captain who puts out to sea without an anchor. He is dead certain to encounter a large number of cases of severe intestinal infection, especially in infants, and a still larger number of mild bowel disorders, due to the combined effects of hot weather and colon bacilli and a few other causes. With Galactenzyme (which is a virile culture of the Bulgarian bacillus) in his hand he can—we had almost said laugh in the face of the Shiga and colon bacilli, but perhaps that is a little too light a way to speak. One can never laugh in the face of disease. But at least he can go in and grapple with it, no matter how severe it may be, with a very confident hope of besting it. Galactenzyme is the sheet-anchor of treatment in these intestinal diseases. It is now being put out, from the home office and branches only, not through the trade in the shape of a pure liquid culture, known as Galactenzyme

Bouillon, for internal use. In this way it retains its virility and freshness longer and better.

IN SPITE of the discredit attempted to be thrown upon them in certain quarters, the Phylacogens continue to "march," as the Frenchman says. Among other conditions in which their beneficial effects are established by clinical experience, it appears that hay-fever is now to be included. Clinical reports show a surprisingly large percentage of recoveries under this treatment. The irritating discharges from the eyes and nose are diminished after the second or third injection; the sneezing is lessened, the dyspnea is relieved and the patient usually sleeps comfortably. The initial dose should be small, the usual procedure being to begin with a 2 Cc. dose subcutaneously, or 5 Cc. intravenously. The reactions are quicker and more severe in the intravenous injections. It certainly looks as though in the Mixed Infection Phylacogen the physician has at last acquired an effective weapon for his fight with this most stubborn disease. As is doubtless well known to most physicians, the product is a Parke, Davis & Co. one.

SIEBENROCK states in the *Klinische Therapeutische Wochenschrift* that large amounts of the active principles of digitalis may be introduced per os in the form of Digipuratum. In this way a rapid and reliable effect is obtained, without any disagreeable after-effects on the part of the stomach. In the severest grades of cardiac insufficiency, eight comminuted tablets of Digipuratum were given at once. This dose was frequently repeated for several days in succession. The author is also convinced of the prompt and reliable effect of Digipuratum injections. In order to obtain a rapid

and permanent effect, it is best to inject a dose of 4-6 Cc. of Digipuratum *into the muscles*. If done properly, the pain is very slight, but the effect is prompt. If the patient is very sensitive, 0.01 morphine may be added to the solution, when the injection will be absolutely painless. The author never injected less than 4 Cc. intramuscularly and he regards 6 Cc. as the maximum dose. A bigeminal pulse may result from 5 Cc. but the therapeutic effect was never interfered with. For *intravenous* injections 2-3 Cc. will suffice and the effect will be almost instantaneous. The solution of Digipuratum has a more permanent effect than solutions of strophanthin. Injections of the latter drug sometimes cause fever which is never the case with Digipuratum.

WE ARE prone, I think, to pay too little attention in these days to the value of the fat element in the diet—especially in the diet of the child. Fat is pre-eminently the tissue *saver*. Without this all-important reserve, the other tissue-elements are rapidly wasted, and it is practically impossible to put on flesh or to build up the body. In an adult, this may or may not be serious; but in a child, who is obliged to put on weight, it is *always* serious.

Now, here is the rub. The child who needs fat the most is the weakling, the malnourished child; and he, of all children, is the one who is unable to digest and assimilate the ordinary forms of fat. To give such a child straight cream, or butter, or even vegetable oils, does not help the matter at all. For him we must have some predigested form of fat that can be digested and assimilated with practically no effort on his part. Fortunately, there is such a preparation available. In Virol we have a glycerinated extract of bone marrow (recognized to be the most nutrient form of fat) in finer emulsification than are even the globules of fat in human milk, with malt extract and yolk of egg. It is almost like feeding the child his own read-made chyle. And its results amply bear out its promise. Try it, doctor, in those cases of infantile wasting disease in which you have been feeding

Business Opportunities

For sale, Exchange, Help Wanted, etc., $2.00 for 25 words or less; additional words 8 cents each. Send cash with order.

MEDICAL ASSISTANTS—WE HAVE SEVERAL vacancies in hospitals and sanitariums, for salaried assistants. Practices bought and sold in all sections of the United States. List of practices for sale and other information sent free on application by addressing "The Medical Echo," Lynn, Mass.

STATIONERY FOR PROFESSIONAL PEOPLE. Letterheads, envelopes, etc., for physicians, dentists, druggists, etc. Finest quality new Engravure print process at about one-half the price of ordinary printing. Portfolio of samples and price list sent free upon request. Eugene Smith Company, 153 Fox Street, Aurora, Illinois.

DRUG STORES (SNAPS)—WITH AND WITHOUT practice. Drug store and traveling jobs; salaried positions of all kinds for physicians, nurses, veterinarians and dentists furnished and located. All states. Special plan obtaining practice or disposing of practice. Estab. 1904. F. V. Kniest, Omaha, Neb.

DOCTOR, IF YOU EVER NEED FOR A PATIENT a reliable and reputable maternity home, see our advertisement in this journal. Union Park Maternity Home.

ARE YOU AT A LOSS WHERE TO SEND YOUR nervous and chronic cases whom you cannot keep at home or in an average hospital? We have all modern, medical and mechanical facilities to care for these patients. Illustrated booklet and Sanatorium leaflet upon request. Bushhill Sanatorium, 1709-1711 Green Street, Philadelphia.

SPECIAL BARGAINS IN X-RAY COILS—1 BIRTMAN coil, 1 Scheidel Western 18-inch coil outfit, 1 Scheidel Western Radiographic special coil, 1 K. K. coil rectifier (three jars), 1 complete Victor Wants coil outfit, practically new. If you are interested in a bargain, write for particulars to The Wm. Meyer Company, 821 W. Washington Blvd., Chicago, Ill.

WE WILL BUY ANY STOCK OF SURGICAL, DENTAL or veterinary instruments for any amount and pay spot cash. Frank S. Betz Co., Hammond, Indiana.

ATTRACTIVE BARGAINS IN ALL KINDS OF PHYsicians' supplies. Write us for quotation and list. The National Physicians Exchange, 30 E. Randolph St., Chicago, Ill.

HERB DOCTOR RECIPE BOOK AND HERB CATAlogue, 10c; worth $5; teaches how to make medicines from herbs for all diseases. IND. HERB GARDENS, Dept. 74, Hammond, Ind.

DOCTOR—$1 GETS MY COLLECTION OF 400 notes from various journals that may increase your income, as Sciatica cured in 24 hours, best treatment for Angina, etc. $ back if wanted. Dr. C. L. Johnson, Ripley, Tenn.

OZONE MACHINE (BETZ), USED ONE MONTH, perfect condition, for sale, cheap. Good reason for selling; snap for some doctor. Wm. F. Decker, M. D., Paterson, N. J.

FOR SALE—$65 BETZ MASSAGE, $30; $65 BETZ Nebulizer, $30; $200 Betz Static, $60; $85 Wall Cabinet, $40; $65 Motor, $30; $20 Transformer, $10; $85 Microscope, $30. Dr. W. R. Weeks, El Paso, Texas.

DOCTOR'S PROPERTY AND PRACTICE IN NORTH eastern Ohio, sold at value of property alone. Openings for doctors. Hoosier Exchange Bureau, Box 184, Fort Wayne, Ind.

A NATURAL MINERAL WATER THAT IS PLEASant to take and of benefit in cases of Constipation, Diabetes Mellitus, Indicanuria. For particulars address P. O. Box Three-Nine-Five, Havana, Ill.

GENTLEMEN'S FUR LINED OVERCOATS—LIMIted quantity, manufacturers' samples, black broadcloth outside, lined throughout with mink-dyed marmot, a beautiful fur, like mink; large handsome Persian lamb collar. All sizes, $27.50; would retail for $60. Sent on approval. You take no risk. Examine and try on before paying. Write today, stating size, enclosing 50c for express charges only, and coat will be sent at once. E. Hart, Dept. B, 1328 Broadway, New York.

GUINEA PIGS FOR EXPERIMENTAL PURPOSES. We have our raisers located in every state. Any number supplied promptly. Cavies Distributing Co., Dept. C, Kansas City, Mo.

SAMPLES—A LARGE STOCK OF AGENTS' AND display samples to offer at reduced prices. Physicians' tables, chairs, medicine and instrument cabinets, stands, stools, etc., also some refinished second-hand goods. Send for list No. 2. W. D. Allison Company, 852 N. Alabama St., Indianapolis, Ind.

WANT TO BUY A MICROSCOPE IN GOOD CONdition. State price wanted. Address No. 1198, care A. J. of C. M.

FOR SALE—ESTABLISHED TRAINING SCHOOL for nurses and registry. A splendid opportunity for physician. Sickness necessitating complete rest. Reason for disposing. Address No. 1199, care A. J. of C. M.

cream and butter, and rubbing in oils, without any effect.

SUCCESSES are often built up on other men's failures. That is to say, the man who goes in and does what other men have tried and tried and failed to do, wins a reputation, and incidentally piles up a competence, which constitutes what the world regards as success. Don't you think, doctor, for example, that if you could take hold of those hay fever cases that have been wheezing and sneezing around your vicinity and cure them, or even materially relieve them, you would stand a fair show of building up a good-sized success on that basis? If you wish to do this, or if you are anxious on any ground to help cases of hay fever, drop a line today to the Abbott Alkaloidal Company, Ravenswood, Chicago, and ask for literature giving full particulars of a new line of treatment for this distressing disease.

Sanitaria and Health Resorts

Geographical Directory of Sanitaria, Health Resorts and Hospitals

ARKANSAS

Eureka Sanitarium, Eureka Springs, in America's best health resort: Bright's, rheumatism, diabetes, etc.

CALIFORNIA

Dr. Case's Sanitarium, 3423 Webster St., Oakland, Calif.
Drug Addictions and Alcoholism.
Dr. C. L. Case.

CONNECTICUT

Dr. Barnes' Sanitarium, Stamford, Conn.
For Mental and Nervous Diseases.
Special department for cases of inebriety.

ILLINOIS

Dr. Broughton's Sanitarium, Rockford, Ill.
Opium, Morphine, Cocaine and Alcoholic Addictions.

INDIANA

Mudlavia, Kramer, Ind
Mudlavia Treatment.

KENTUCKY

Dawson Spring Sanatorium, Dawson Springs, Ky.
G. Frank Russell, M. D.
For Health. For Rest. For Recreation.

LOUISIANA

Stevenson Sanitarium, Covington, La.
Desirable accommodations, permitting segregation, individual treatment and sociability; delightful climate, renowned for healthfulness; tuberculin in suitable cases; $12 a week, up. Booklet on application.

MARYLAND

Pearson Home, Hillsdale, Baltimore Co., Md.
Drug Addictions and Alcoholism.

OHIO

Oxford Retreat, Oxford, Butler Co., Ohio.
Dr. R. Harvey Cook, Physician-in-Chief.

The Pines, Oxford, Butler Co., Ohio.
Dr. R. Harvey Cook, Physician-in-Chief.

PENNSYLVANIA

Easton Sanitarium, Easton, Pa.
C. Spencer Kinney, M. D., Proprietor.
Elderly Invalids and Mild Mental Cases.

TENNESSEE

Lynnhurst, Memphis, Tenn.
S. T. Rucker, M. D., Medical Supt.
Nervous Diseases and Drug Addictions, etc.

Drs. Pettey & Wallace's Sanitarium, Memphis, Tenn.
Geo. E. Pettey, M. D., Medical Director.
W. R. Wallace, M. D., Resident Physician.
Alcohol and Drug Addiction, Mental and Nervous Diseases.

BUYING GUIDE FOR PHYSICIANS

A Classified Index of the Progressive Advertisers in The American Journal of Clinical Medicine

These are deserving of your patronage. Further information may be secured direct from the advertisers. Write to them mentioning

THE AMERICAN JOURNAL OF CLINICAL MEDICINE :-: RAVENSWOOD, CHICAGO

ACCOUNTING AND CLINICAL RECORD SYSTEMS

Abbott Alkaloidal Co., The, Chicago, Ill.
Physicians' Protective Accountant.

ALCOHOLISM AND DRUG ADDICTION

Case, M. D., C. L., Oakland, Cal.

Pearson Home, Hillsdale, Md.

Pettey & Wallace's Sanitarium, Drs., Memphis, Tenn.

Rapid Remedy Co., New York, N. Y.

ANTISEPTICS

Barrett Manufacturing Co., New York, N. Y.
Pyxol—The Non-poisonous Surgical and Medical Bactericide and Antiseptic.

Chinosol Company, New York, N. Y.
Chinosol. Samples and Literature on request.

Dentinol & Pyorrhocide Co., New York, N. Y.
Pyorrhocide, The Oral Prophylactic.

Johnson & Johnson, New Brunswick, N. J.
Synol Antiseptic Soap.

ARTIFICIAL LIMBS

Aloe Co., A. S., St. Louis, Mo.
Spencer Microscope and Bacteriological Set.

Marks, A. A., New York, N. Y.
Marks Artificial Limbs.

Sharp & Smith, Chicago, Ill.

AUTOMOBILE TIRES AND ACCESSORIES

Standard Oil Co., Chicago, Ill.
Polarine.

BENEFICIAL BEVERAGES FOR THE SICK

Anheuser-Busch, St. Louis, Mo.
Malt-Nutrine. Sold by all Druggists.

Armour & Company, Chicago, Ill.
Armour's Grape Juice. At all Druggists.

French Lick Hotel Co., French Lick, Ind.
Pluto Water. Ask your Druggist.

Holstein-Friesian Association, Brattleboro, Vt.
Holstein Cows' Milk.

Pabst Brewing Co., Milwaukee, Wis.
The "Best" Tonic.

Welch Grape Juice Co., The, Westfield, N. Y.
Welch's Grape Juice.

DEFORMITY APPARATUS

Aloe Co., A. S., St. Louis, Mo.
Spencer Microscope and Bacteriological Set.

Ambulatory Pneumatic Splint Mfg. Co., Chicago, Ill.
Splints for Ambulatory Treatment of Fracture.

Betz, Frank S., Hammond, Ind.

Huston, Bros., Chicago, Ill.

Philo Burt Mfg. Co., Jamestown, N. Y.
Appliances for the Cure of Spinal Curvature and all Forms of Spinal Troubles. Braces for Stooping Shoulders and Abdominal Supporters. Send for Literature.

Sharp & Smith, Chicago, Ill.

DENTAL SUPPLIES

Betz Co., Frank S., Hammond, Ind.

ELECTRO-THERAPEUTIC APPARATUS AND SUPPLIES

Aloe Co., A. S., St. Louis, Mo.
Spencer Microscope and Bacteriological Test.

Betz Co., Frank S., Hammond, Ind.
Electro-Therapeutic Apparatus of all kinds.

McIntosh Battery & Optical Co., Chicago, Ill.
High Frequency Outfit.

Sharp & Smith, Chicago, Ill.

Victor Electric Co., Chicago, Ill.
The Combistat.

FOODS FOR PERSONS OF ALL AGES—SICK OR WELL

Heinz Co., H. J., Pittsburgh, Pa.
Preserved Fruits and Jellies.
Heinz Olive Oil.

Postum Cereal Co., Battle Creek, Mich.
Postum, Grape Nuts, Post Toasties.

Pure Gluten Food Co., The, New York, N. Y.
Gum Gluten Flour.

Quaker Oats Co., The, Chicago, Ill.
Quaker Oats.

Royal Baking Powder Co., New York, N. Y.
Royal Baking Powder.

Thompson's Malted Food Co., Waukesha, Wis.
Hemo—Concentrated Food.

FURNITURE FOR PHYSICIANS' OFFICES AND HOSPITALS

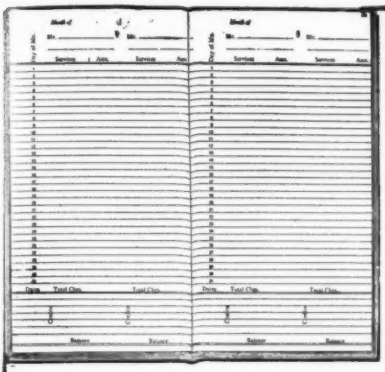
Allison Co., W. D., Indianapolis, Ind.
Send for catalog.

Aloe Co., A. S., St. Louis, Mo.
Spencer Microscope and Bacteriological Set.

Betz, Frank S., Hammond, Ind.
Big catalog free.

Sharp & Smith, Chicago, Ill.
Prices on application.

Wocher & Son Co., Max, Cincinnati, Ohio.
Booklet free on request.



Doctor, How About Your Collections? Regret is the Corrosive Sublimate of Life. Determination to Avoid Mistakes is the Antidote. Take It.

You will have no regrets if you use the

PHYSICIAN'S PROTECTIVE ACCOUNTANT

AND YOU WILL MAKE NO MISTAKES

This is the most practical, legal pocket visiting list and financial record that has ever been prepared for the physician's use. It has the advantage of being exceedingly simple, and conveniently adapted to the physician's pocket or satchel, while meeting all the requirements of the laws of the various states regarding the keeping of accounts.

The Physician's Protective Accountant is a combination of twelve monthly visiting-list sections (see illustration above) and a yearly ledger (as shown below), for the transferring of accounts and a record of monthly balances.

The outfit is so arranged that every patient's account is kept separately in a form most convenient for transfer to the ledger, the latter being simplicity itself. There are separate pages for the record of cash receipts and for obstetrical cases.

PRICES

Complete Outfit (12 Monthly Sections and Ledger)	**$2.50**
Extra Visiting List Sections, per dozen	**1.00**
Less than six, each	**.10**
Ledger, alone	**1.50**

Send your order today.

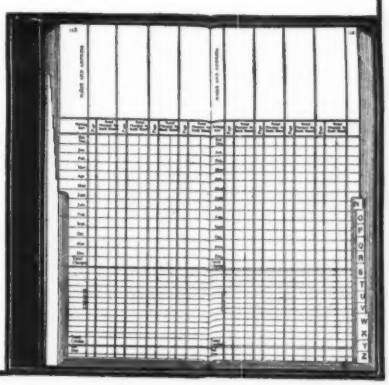
DELIVERY PREPAID

Sample Visiting List Section will be sent free.

THE ABBOTT ALKALOIDAL CO.

Ravenswood, CHICAGO

Seattle **San Francisco** **Los Angeles**
New York **Toronto** **Bombay**



HYGIENIC FOOTWEAR

O'Sullivan Rubber Co., New York, N. Y.
O'Sullivan Rubber Heel.

INFANT FOODS

Mellin's Food Co., Boston, Mass.
Mellin's Food.

LABORATORIES

Abbott Laboratories, The, Ravenswood, Chicago, Ill.
Clinical Laboratory Diagnosis.

Chicago Laboratory Co., Chicago, Ill.
Autogenous Vaccines, $5.00.

MAGAZINE BINDERS

American Journal of Clinical Medicine, The, Chicago, Ill.
"Big Ben" Binder. Price, $1.00.

MANUFACTURING PHARMACISTS

Abbott Alkaloidal Co., The, Chicago, Ill.
1913-1914 Price List free on request.

Albany Chemical Co., Albany, N. Y.
Ether Sulphuric, Pro Narcosi—the ideal anesthetic.

Anasarcin Chemical Co., The, Winchester, Tenn.
Anasarcin for Dropsy.

Animal Therapy Co., The, Chicago, Ill.
Robert's Hawley Lymph Compound.

Antidolar Mfg. Co., The, Springville, N. Y.
Dr. R. B. Waite's Antiseptic Local Anesthetic.

Armour & Co., Chicago, Ill.
Pituitary Liquid.

Astier Laboratories, Paris, France.
Arheol.

Battle & Co., St. Louis, Mo.
Papine—Bromidia.

Bovinine Co., The, New York, N. Y.
Bovinine, the Food and Tonic for Brain, Body, Blood and Bone.

Breitenbach Co., M. J., New York, N. Y.
Pepto-Mangan (Gude) General Systemic Tonic.

Budwell Pharmacal Co., Lynchburg, Va.
Budwell's Emulsion of Cod Liver Oil.

Burnham Soluble Iodine Co., Auburndale, Mass.
Burnham's Soluble Iodine in Treatment of Goitre.

Crittenton Co., Chas. N., New York, N. Y.
Hydroleine.

Cystogen Chemical Co., St. Louis, Mo.
Cystogen-Lithia.

Dentinol & Pyorrhocide Co., New York, N. Y.
Pyorrhocide—The Oral Prophylactic.

Dios Chemical Co., St. Louis, Mo.
Dioviburnia—Neurosine—Germiletum—Palpebrine.

Etna Chemical Co., The, New York, N. Y.
Phenalgin—an ideal Antipyretic. Analgesic and Expectorant.

Fellows Company, The, New York, N. Y.
Syr. Hypophos. Comp., Fellows.

Fougera & Co., E., New York, N. Y.
Arheol.

Gaynor-Bagstad Co., Sioux City, Iowa.
Fa Episan-Berensdorf-Berlin.

Hoffman-La Roche Chemical Works, The, New York, N. Y.
Digalen—Pantopon—Thiocol. Samples and literature on request.

Klipstein & Co., A., New York, N. Y.
Lipoiodine-Ciba.

Knoll & Co., New York, N. Y.
Digipuratum. Literature and samples on request.

Kress & Owen Co., New York, N. Y.
Glyco-Thymoline for Catarrhal Conditions.

Maltbie Chem. Co., The, Newark, N. J.
Calcreose.

Merck & Company, New York, N. Y.
Manufacturing Chemists.

Mulford Co., H. K., Philadelphia, Pa.
Mulford's Antitoxin.

N. Y. Pharmaceutical Co., Bedford Springs, N. Y.
Hayden's Viburnum Compound.

Norwich Pharmacal Co., Norwich, N. Y.
The Vacamp Family.

Parke, Davis & Co., Detroit, Mich.
Manufacturing Chemists.

Parmele Pharmacal Co., New York, N. Y.
Chinosol.

Peter & Co., Arthur, Louisville, Ky.
Syrupus Roborans—Peter's Peptic Essence.

Plessner Co., The Paul, Detroit, Mich.
Taurocol Tablets.

Pneumo-Phthysine Chemical Co., Chicago, Ill.
Pneumo-Phthysine. Prompt and gratifying results follow its use in Pneumonia.

Pond's Extract Co., New York, N. Y.
Pond's Extract.

Purdue Frederick Co., The, New York, N. Y.
Gray's Glycerine Tonic Compound.

Ramsdell Drug Company, New York, N. Y.
Sulphur Cream.

Reinschild Chemical Co., New York, N. Y.
Regulin—a Cure for Constipation.

Robins Co., A. H.—Richmond, Va.
Pil. Cascara Comp.—Robins.

Rochester Biologic Corporation, Rochester, N. Y.
Crotalin.

Sherman, M. D., G. H., Detroit, Mich.
Sherman's Bacterins.

Smith Co., Martin H., New York, N. Y.
Ergoapiol. Samples and literature sent on request. Glyco-Heroin.

Wampole & Co., Henry K., Philadelphia, Pa.
Wampole's Preparation of Cod Liver Extract.

Wulfing & Co., A., New York, N. Y.
Formamint—Germ-Killing Throat Tablet.

Zemmer Co., The, Pittsburgh, Pa.
Intestinal Digestant (Zemmer).

MATERNITY HOMES

Ross Sanitarium, Anna, Chicago, Ill.

Union Park Maternity Home, Chicago, Ill.

Willow Maternity Sanitarium, Kansas City, Mo.

MEDICAL BOOKS AND PUBLISHERS

ALBRIGHT, DR. J. P., Philadelphia, Pa.
Books on Office Practice.

AMERICAN JOURNAL OF CLINICAL MEDICINE, THE, Chicago, Ill.

BACKBONE PUBLISHING CO., Chicago, Ill.
Backbone.

DETROIT MEDICAL JOURNAL CO., Detroit, Mich.

ELLINGWOOD'S THERAPEUTIST, Chicago.

MEDICAL HERALD, THE, St. Joseph, Mo.

MEDICATED AND ANTISEPTIC SOAPS

JOHNSON & JOHNSON, New Brunswick, N. J.
Synol Antiseptic Soap. Samples on request.

MEDICINE CASES AND BAGS

ABBOTT ALKALOIDAL CO., THE, Chicago, Ill.
Filled Medicine Cases.

ALOE CO., A. S., St. Louis, Mo.
Spencer Microscope and Bacteriological Set.

MISCELLANEOUS

COCROFT, SUSANNA, Chicago, Ill.
Physical Exercise. Full information sent on request.

KELLER, DR. A. H., Sioux Falls, S. D.
Tuberculin Test Plate.

PRACTICES FOR SALE, MEDICAL ASSISTANTS, ETC.

KNIEST, F. V., Omaha, Neb.

MEDICAL ECHO, THE, Lynn, Mass.

RAILROADS

CHICAGO, MILWAUKEE & ST. PAUL, Chicago, Ill.

SANITARIUMS

BATTLE CREEK SANITARIUM, Battle Creek, Mich.
For Chronic Invalids.

CASE, M. D., C. L., Oakland, Cal.
Alcohol and Drug Addictions.

FRENCH LICK SPRINGS HOTEL CO., French Lick, Ind.
Pluto Water.

MUDLAVIA, Kramer, Ind.
Mudlavia Baths. Dr. Geo. F. Butler, Medical Director.

OXFORD RETREAT, Oxford, Ohio.

PEARSON HOME, Hillsdale, Md.
Drug Addictions.

PETTEY & WALLACE'S SANITARIUM, DRS., Memphis, Tenn.

Alcohol and Drug Addictions; Nervous and Mental Diseases.

PINES, THE, Oxford, Ohio.

ROSS SANITARIUM, ANNA, Chicago, Ill.
Maternity Home.

UNION PARK MATERNITY HOME, Chicago, Ill.

WILLOWS MATERNITY SANITARIUM, Kansas City, Mo.

SCHOOLS AND COLLEGES

POST-GRADUATE MEDICAL SCHOOL, Chicago, Ill.

SUPPORTERS, ELASTIC STOCKINGS, BANDAGES AND TRUSSES

AMBULATORY PNEUMATIC SPLINT CO., Chicago, Ill.

BETZ, FRANK S., Hammond, Ind.

EMPIRE MFG. CO., Lockport, N. Y.
Abdominal Supporter, Elastic Bandage, Umbilical Truss.

HUSTON BROS. CO., Chicago, Ill.

POMEROY COMPANY, New York, N. Y.
Abdominal Supporters, Elastic Stockings, Orthopedic Apparatus.

SHARP & SMITH, Chicago, Ill.
Elastic Stockings and Binders. Catalog on request.

STORM, M. D., KATHERINE L., Philadelphia, Pa.
Storm Binder and Abdominal Support.

SURGICAL INSTRUMENTS, SUPPLIES, APPARATUS AND APPLIANCES

ALOE CO., A. S., St. Louis, Mo.
"Tycos" Sphygmomanometer.

BERLIN ANILINE WORKS, New York, N. Y.
"Agfa" Röntgen Plate.

BETZ, FRANK S., Hammond, Ind.
Catalog on request.

HARTZ CO., THE, J. F., Detroit, Mich.
Surgical Instruments and Supplies

HUSTON BROTHERS CO., Chicago, Ill.
Surgical and Electrical Instruments.

KIMBLE-DURAND GLASS CO., Chicago, Ill.
Kadeco Hypodermic Syringes.

SHARP & SMITH, Chicago, Ill.
Catalog on request.

TAYLOR INSTRUMENT COMPANIES, Rochester, N. Y.
"Tycos" Sphygmomanometer.

THERMOS CO., Norwich, Conn.
Thermos Bottles.

WESTERN SUPPLY CO., Canton, Ohio.
Hypodermic Syringes.

THERMOMETERS

BETZ CO., FRANK S., Hammond, Ind.

HUSTON BROS., Chicago, Ill.

SHARP & SMITH, Chicago, Ill.

TAYLOR INSTRUMENT COMPANIES, Rochester, N. Y.
Tycos Fever Thermometers.

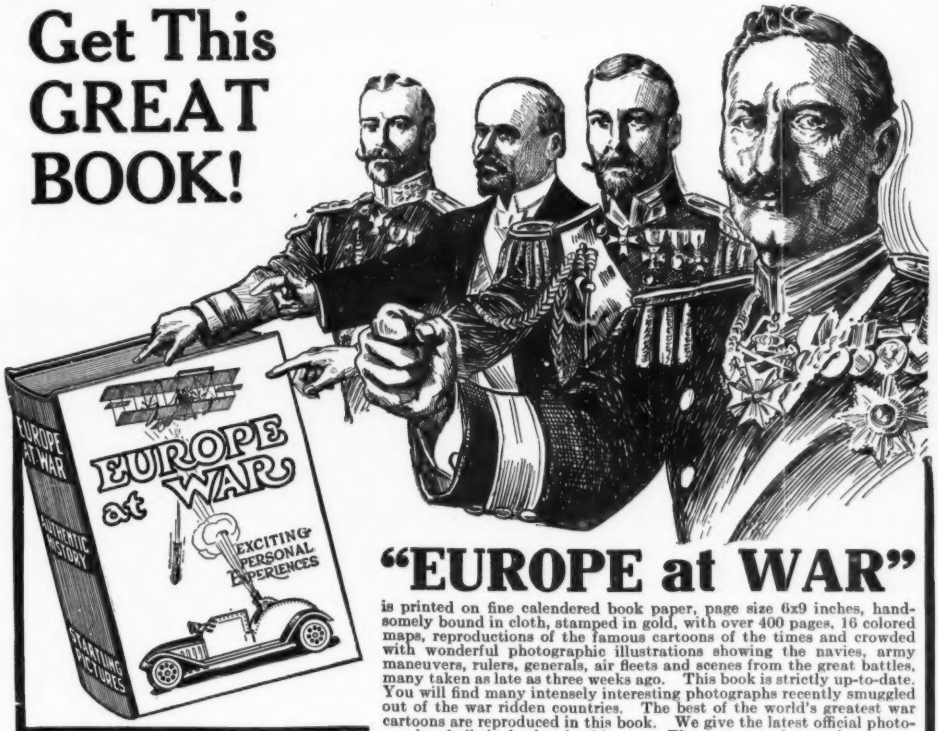
TYPEWRITERS

TYPEWRITER DISTRIBUTING SYNDICATE, Chicago, Ill.
Booklets on request.

WEARING APPAREL

GOODWIN, New York, N. Y.
Goodwin Corsets.

Get This GREAT BOOK!



"EUROPE at WAR"

is printed on fine calendered book paper, page size 6x9 inches, handsomely bound in cloth, stamped in gold, with over 400 pages, 16 colored maps, reproductions of the famous cartoons of the times and crowded with wonderful photographic illustrations showing the navies, army maneuvers, rulers, generals, air fleets and scenes from the great battles, many taken as late as three weeks ago. This book is strictly up-to-date. You will find many intensely interesting photographs recently smuggled out of the war ridden countries. The best of the world's greatest war cartoons are reproduced in this book. We give the latest official photographs of all the leaders in this war. The maps are clear and accurate. It is a whole library of European history boiled down to the important decisions—the most interesting anecdotes—the most thrilling events. This book in any store could not be bought for less than $2.50. Read our special offer below.

Contents

400 Pages
125 Illustrations

CHAPTER

THE AUTHOR—A WELL KNOWN HISTORIAN

"Europe at War" is written by Judge Henry Neil, who has written many important histories under the name of "Marshall Everett." Judge Neil put through the Mothers' Pension Law in nineteen states. Judge Neil has a wonderful faculty of telling the story of the causes of this war and introduces startling stories of personal experiences. For instance: Did you know that Emperor William never uses a knife when he dines? Did you know that in 1870, the beginning of the Franco-Prussian War, General Von Moltke, sick in bed, mobolized the German army by messenger? Did you know Lord Kitchener was born in Ireland and why he has been selected to be the head of the War Department? These merely suggest some of the intensely interesting anecdotes in this fascinating story.

Look over the table of contents given on this page. That gives you some idea of the scope of this book. It is a book that you cannot afford to get along without at the present time. Everyone reads the war news and talks about it. By reading this book you will inform yourself and get innumerable points clear in your mind as to why all of Europe is seething with war. You will understand the final settlements of peace.

SPECIAL OFFER TO OUR READERS!

This coupon and $1.25 (which includes postage and packing) brings this book to you. We have made special arrangements with publishers, The Bible House, Chicago, for the distribution of "Europe at War," which is a remarkable opportunity for all of our readers to get it at half its regular price. "Europe at War" should be in every home and every library.

NOTICE OF NEUTRALITY

"Europe at War" is absolutely neutral. It favors no one side. It draws no conclusions as to the present conflict. It is written from the view point of an unbiased historian. It gives the facts—the history of previous events and shows their relation to what has happened within the last thirty days. Get it for yourself—get it for your boys—get it for the whole family. This great war affects everybody and this great book gives you the rock-bottom facts. After you read it you will appreciate why we under the Stars and Stripes **Can and Will Remain Neutral.**

COUPON

The American Journal of Clinical Medicine, 4753 Ravenswood Ave., Chicago, Ill.:

Enclosed find $1.25 (which includes postage and packing) in U. S. money order, for which please send me one copy of "Europe at War" regularly sold at $2.50.

Name.....

Address.....

.....

Ellingwood's Therapeutist

FINLEY ELLINGWOOD M.D.
EDITOR AND PUBLISHER
32 N. STATE ST. CHICAGO

SINGLE TRUTHS • FROM MANY DOCTORS • AND • MANY TRUTHS • FOR • EACH DOCTOR

Vol. 8. No. 12 December, 1914

SUBSCRIPTION • PRICE • $1.00 PER • YEAR • IN ADVANCE • AND ONE FACT